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The AI opportunity for eGovernment in Sweden

The opportunity for the Swedish Government to move from ‘convinced believer’ to ‘fast implementer’

May 2025

Generative AI has significant potential to enhance productivity in public administration in Sweden, creating 10% more value for money, equivalent to an annual contribution of SEK 25 billion.

AI in public administration is a good place to start. This report explores the substantial potential of generative AI in Sweden's public administration, which is well suited for early AI benefits with low risk.

Early AI adoption by the government can accelerate AI uptake across the economy by setting an example within existing regulations**.** To move from 'convinced believer' to 'fast implementer', the Swedish government should set ambitious goals to realise most of the AI potential within five years and fully within ten.

What is eGovernment?

The European Commission defines eGovernment as:

"Effective digital public services which can provide a wide variety of benefits. These include more efficiency and savings for governments and businesses, increased transparency, and greater participation of citizens in political life.

[…] eGovernment involves more than just the tools: it involves rethinking organisations and processes and changing behaviour so that public services are delivered more efficiently to people.

Implemented well, eGovernment enables citizens, enterprises and organisations to carry out their interactions with government more easily, more quickly and at lower cost."

The government must overcome five key barriers…

- Fragmented decision-making
- Fear of breaking the rules
- Ensuring public support
- Cloud uncertainty
- Vendor lock-in risk

Make the AI potential executable…

Think ‘task-based’

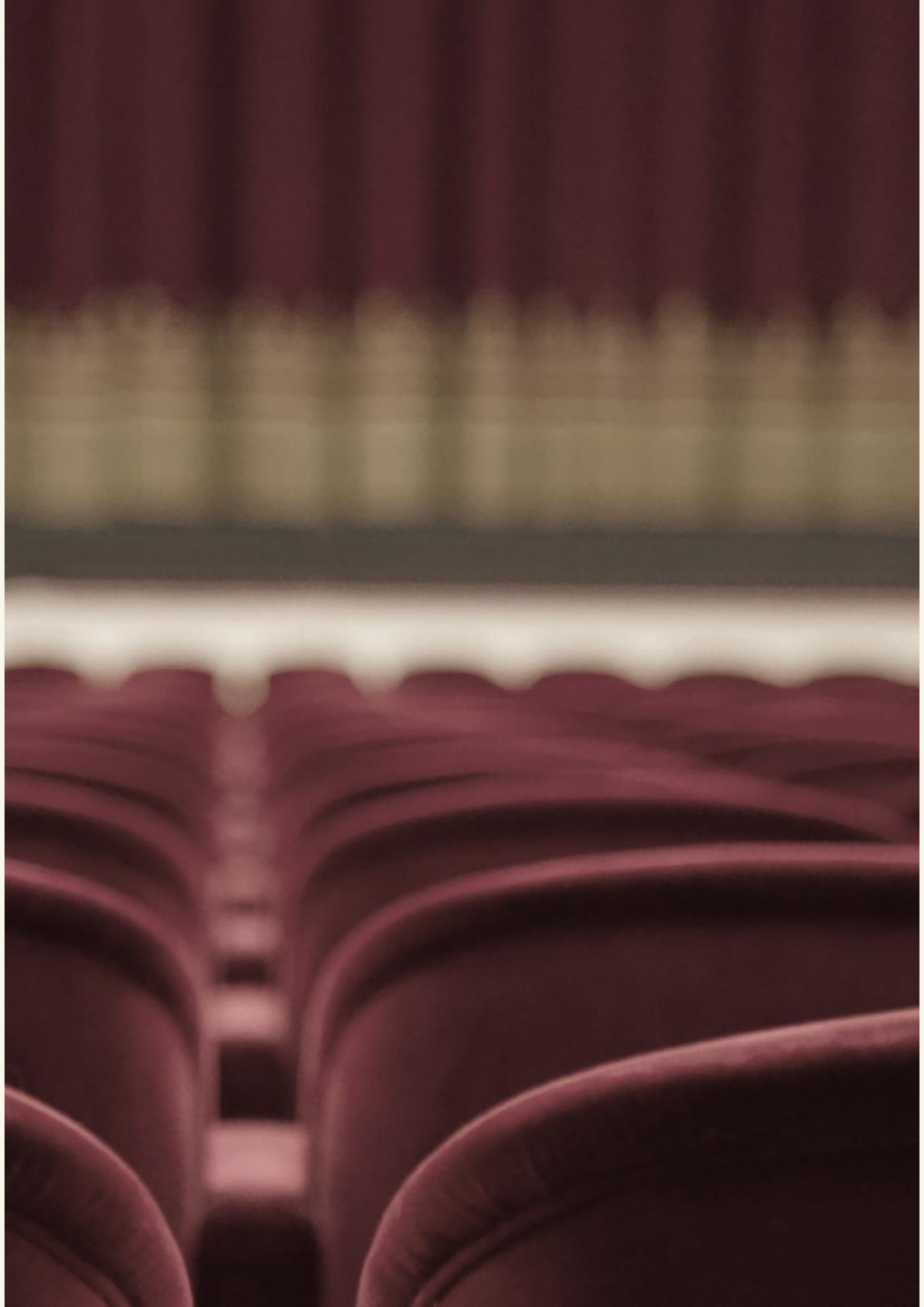
Cross-cutting tasks underpin most jobs in public administration. The top five tasks represent 80% of the potential. However, fragmented decision-making leads to many pilots without scalable impact. The government should focus on key cross-cutting tasks to achieve economies of scale while addressing local needs. This requires a cross-institutional AI procurement plan with clear roles and responsibilities to ensure alignment and scalability.

Think ‘risk-conscious’

Low-risk, internal AI applications constitute 20% of the total potential. The fear of breaking rules in a complex regulatory environment is slowing AI adoption. Therefore, the Swedish government should begin with the low-risk applications and gradually move to user-sensitive, externally-facing applications to unlock most of the potential.

Think ‘impact-oriented’

The implementation of AI solutions should be motivated by the needs of citizens and businesses, improving the user experience and reducing the time and hassle in their interactions with the public administration. Generative AI can reduce Swedish companies’ administrative burden by SEK 8–9 billion.



Note: The term *‘public administration’* in this report refers to the administration of public institutions, including the organisation and administration of public services and legislation, while **not** including health and education.

Get critical enablers in place…

Create cloud clarity

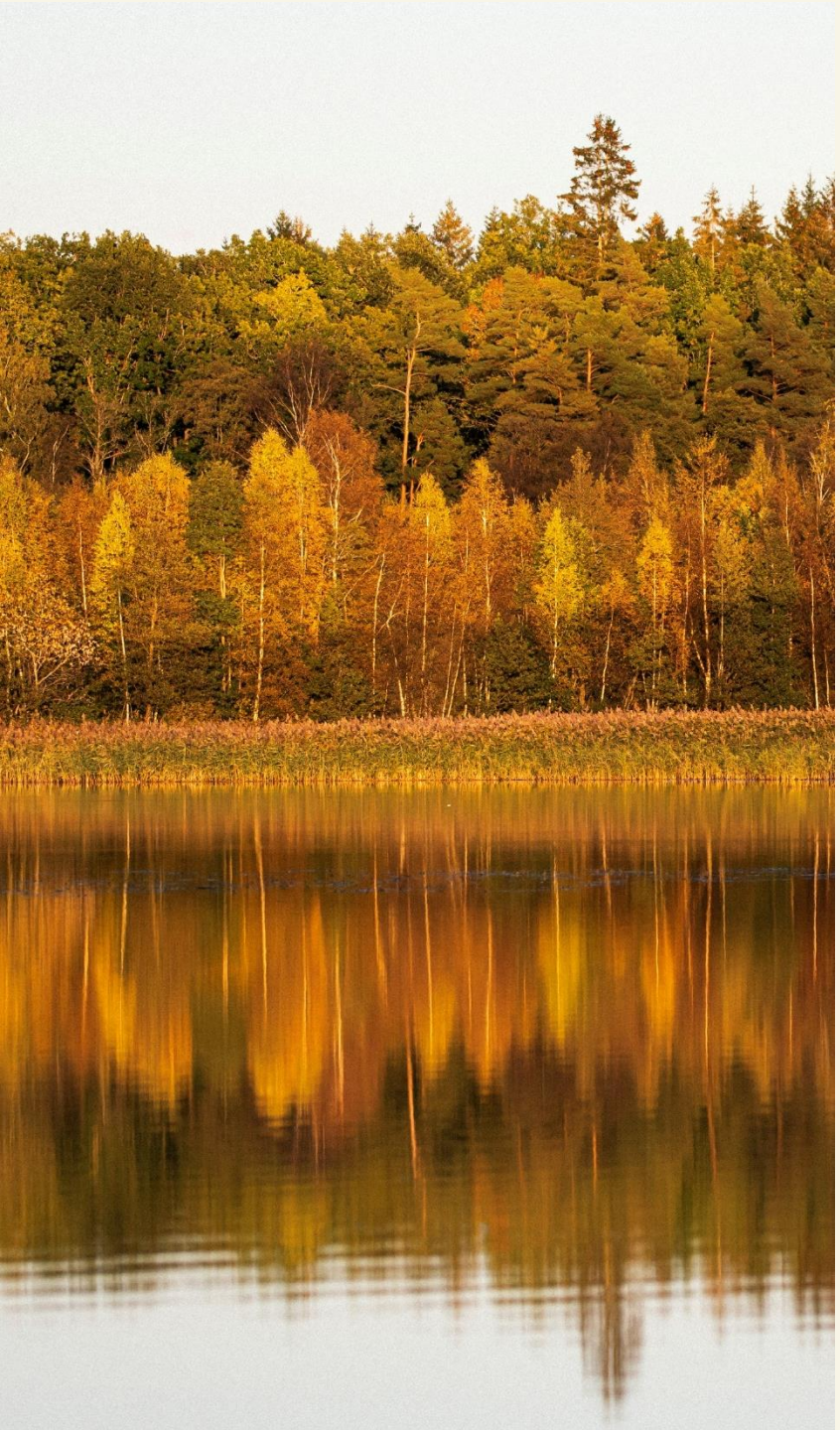
A secure and competitive cloud infrastructure is crucial for cost-efficiently implementing advanced AI at scale. However, misconceptions about on-premise systems prevent public institutions from adopting cloud infrastructure. The government should establish a framework for secure and compliant cloud adoption, enabling public actors to innovate while safeguarding transparency and sovereignty.

Make smart procurement choices

Governments must carefully assess the risk of vendor lock-in and ensure an interoperable AI procurement framework. Vendor lock-in risk leads to suboptimal, inefficient and costly AI solutions in the public administration. Across five European countries, 60% of surveyed IT decision-makers in the public sector cited licensing restrictions as a key barrier to switching.

Implement an ambitious AI strategy

To fully harness AI potential, Sweden should set ambitious targets and create an actionable strategy with clear milestones. The Swedish AI Commission suggests the government form a task force to prepare an AI strategy. The strategy should include risk and impact measures for prioritisation and scaling successful applications.



Introduction

A large and untapped potential

To realise the AI potential in the Swedish public administration, five key barriers must be overcome

> *… we are facing a crossroads where our future prosperity will be largely determined by how well we manage to take advantage of AI's opportunities and manage its problems.*
>
> **The AI Commission** in Roadmap for Sweden (2024)

The Swedish AI Commission highlights the potential of AI to enhance public services that benefit citizens, businesses and employees

According to the Swedish AI Commission, AI could…

Boost productivity

The handling of various cases can be sped up with the support of AI, for example through more automated authorisation processes.

Increase accessibility

By cooperating and creating a joint AI infrastructure, Sweden can lay the foundations for a future where all residents – regardless of where they live – have access to modern, digital, and high-quality public services.

Improve resilience

AI has the potential to transform Sweden's public sector and create an operation that is not only more efficient but also more accurate, robust and adaptable to meet the societal challenges of the future.

Enhance quality

Artificial intelligence can improve public services, by helping to personalise education, to give patients more time and better support and anticipate professional transitions, and to reduce bureaucracy.

Increase security

[…] AI is also a highly effective tool for countering risks to society. In order to further increase safety in society, we therefore propose an investment in increased research on AI and cyber security […].

To realise these benefits, this analysis identifies five key barriers and outlines how to unlock the AI potential.

Note: Quotes are translated from Swedish to English by Implement Consulting Group.
Source: Implement Economics based on The Swedish AI Commission (2024).

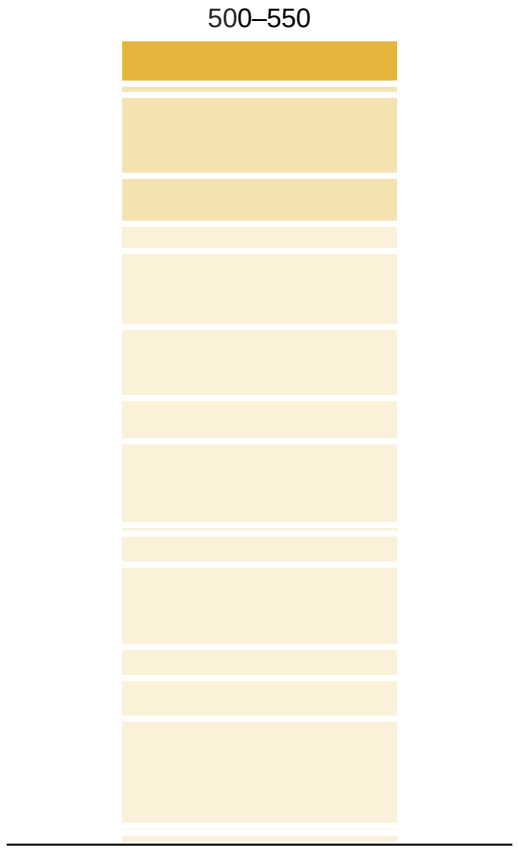
The Swedish government can get 10% more value for money by adopting generative AI

Generative AI presents a significant economic opportunity for Sweden, potentially contributing 9% (SEK 500–550 billion) of GDP annually in ten years.

In public administration, generative AI can significantly enhance productivity and drive cost-efficiency. Widespread adoption of generative AI in public administration can create SEK 25 billion in gross value added with the same resources. The potential is equivalent to 0.8% of public expenditure.

Demonstrating successful AI impact in public administration is crucial to unlocking its full economic potential.

Economic potential of generative AI in Sweden
SEK billion at widespread adoption



- **Public administration**
- Other public sectors, incl. health and education
- Private sectors

10% more value for money, equivalent to **SEK 25 billion** annual contribution

Note: The economic potential in public administration is measured in terms of gross value added (GVA). GVA is the standard measure of economic value at sector level and is a major part of the gross domestic product (GDP), which also includes net taxes. See appendix for details. Public expenditure based on 2024 data (SEK 3,217.8 billion). 'Public administration' refers to NACE sector O (Public administration and defence; compulsory social security) and comprises activities related to the administration of the state and the economic and social policy of the community, but not health, education and activities performed by private organisations, voluntary associations, or businesses providing similar services.
Source: Implement Economics based on Statistics Sweden, Eurostat, O*NET, Briggs and Kodnani (2023).

Public administration is the backbone of the public sector in Sweden

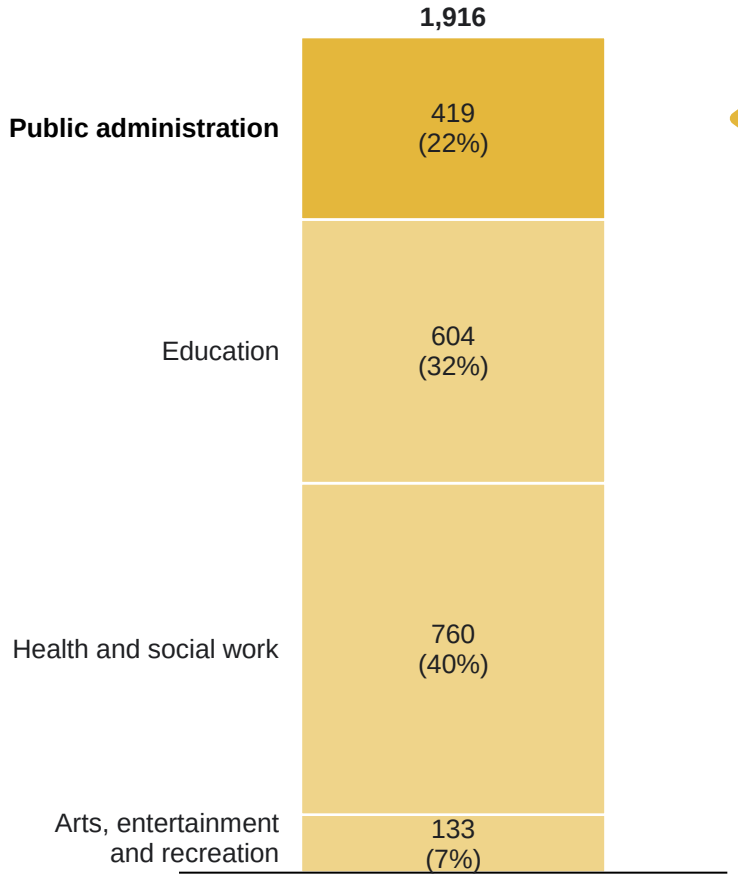
The public sector is an important part of the Swedish economy and society. It accounts for around 36% of all jobs and delivers services benefiting citizens and businesses. Public expenditure is equivalent to 50% of Sweden's GDP.

Public administration makes up nearly a quarter of public sector jobs. Their work has characteristics that allow it to benefit from generative AI, such as text heavy work, repetitive tasks and complex analysis.

Public administration includes national, regional, and local government and forms the backbone of the public sector.

> In Sweden, the public commitment is very extensive. It has created basic security for many people, not least during times of change and periods when the pressures on our society have been great.
>
> **The AI Commission** in Roadmap for Sweden (2024)

Employment in the public sector in Sweden
Thousand employees, 2023



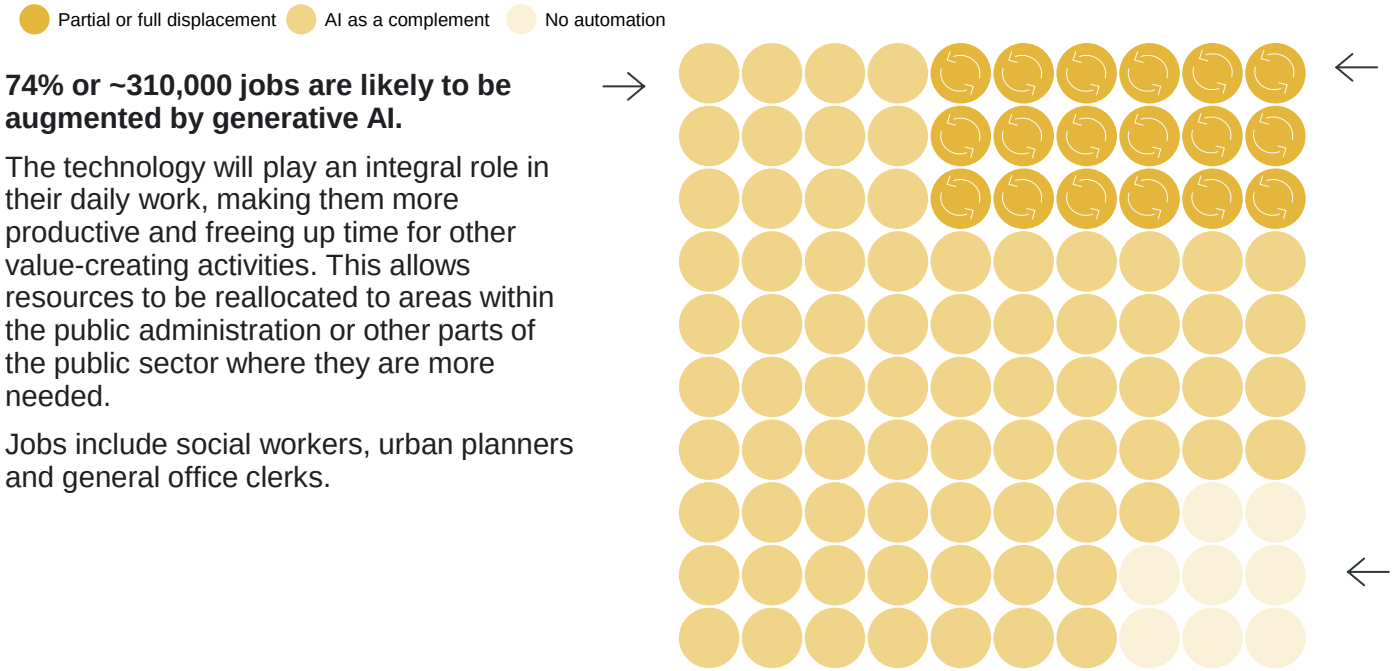
The public administration is the focus of this report. It provides value through key functions such as:

- **Citizen advisory**: Providing guidance on government services, legal rights, and administrative procedures.
- **Individual case handling:** Processing citizen applications for public services.
- **Finance and budgeting:** Managing public funds and disbursing benefits, subsidies and aid.
- **General governance and regulation:** Drafting, evaluating and implementing policies to address societal needs.

Note: Percentages may not sum to 100 due to rounding. Employment figures based on latest available data for this level of sectoral disaggregation from Eurostat.
Source: Implement Economics based on Eurostat and ekonomifakta (2024).

Most public administration jobs can be complemented by generative AI

Exposure to automation by generative AI in public administration in Sweden
% of jobs in public administration



74% or ~310,000 jobs are likely to be augmented by generative AI.

The technology will play an integral role in their daily work, making them more productive and freeing up time for other value-creating activities. This allows resources to be reallocated to areas within the public administration or other parts of the public sector where they are more needed.

Jobs include social workers, urban planners and general office clerks.

18% or ~75,000 jobs are estimated to be highly exposed to generative AI, leading to some job transitions.

These workers may experience a shift in responsibilities as generative AI automates over half of their tasks, with tools such as citizen facing chatbots handling general inquiries automatically, for example. This improves the speed and quality of administrative tasks, saving resources for the central and local governments.

Jobs include citizen service functions, lawyers, and budget analysts.

8% or ~35,000 jobs in public administration face little or no automation from generative AI.

These workers carry out manual or human-to-human work, including physical maintenance of public infrastructure and on-site inspections to ensure compliance and safety in public spaces.

Human agency remains at the heart of AI adoption in the public sector. In Sweden, national initiatives such as AI Competence for Sweden empower public employees with critical AI skills.

Source: Implement Economics based on detailed O*NET mapping to detailed ISCO level 4 employment data.

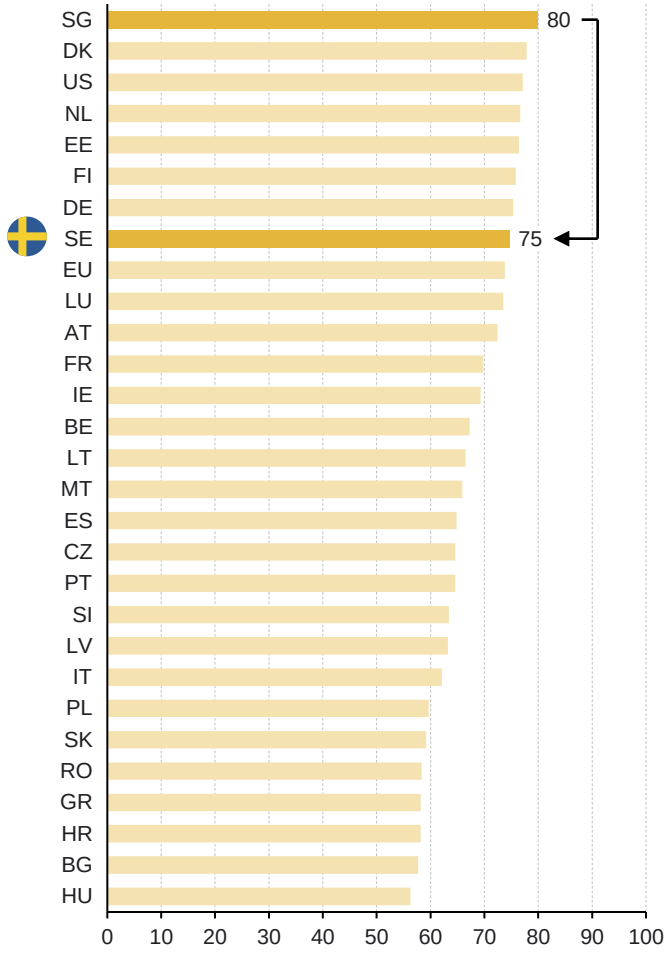
The Swedish government is trailing behind on AI readiness

Sweden has long been a digital leader, as reflected in the high ranking on IMF's AI preparedness Index, but in recent years the country has lost ground. Sweden has fallen outside the top three in the European DESI ranking and is outranked by peers such as France, the Netherlands and Germany in the Tortoise Government Strategy index. The index measures the depth of commitment from national governments to AI, investigating spending commitments and national strategies.

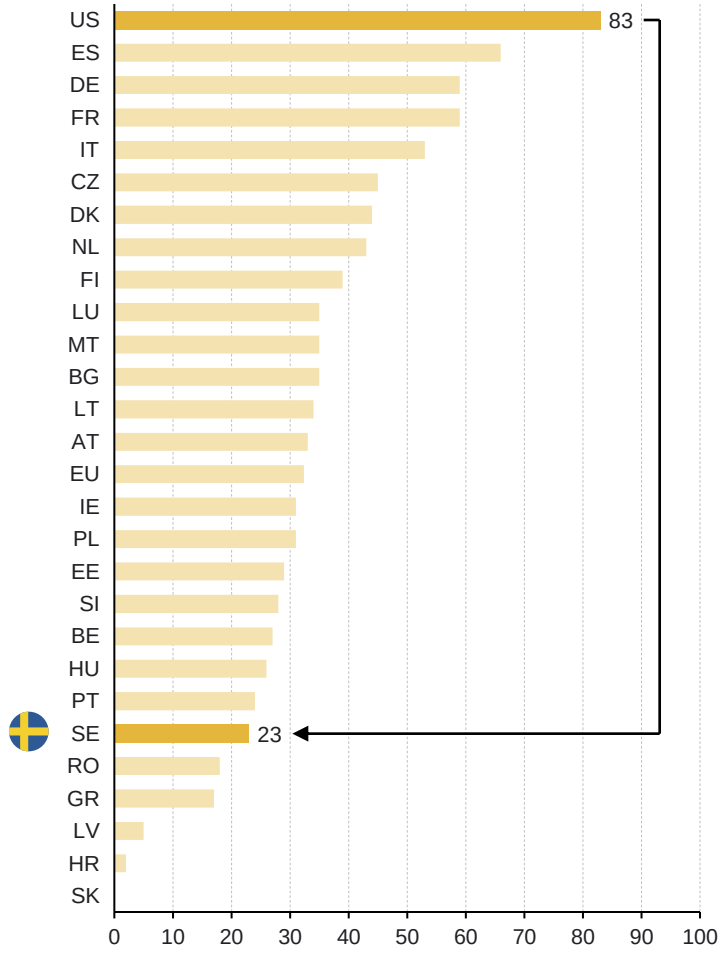
With deployment planned for 2026, the EU has chosen Sweden as the site for one of its first European AI factories – an important signal of governmental commitment to AI that now needs to be translated into concrete action.

> In previous technology shifts, Sweden has often been able to demonstrate technology leadership early on through the establishment of new, fast-growing and later world-leading companies. We do not yet see anything like that when it comes to AI and Sweden.
>
> **Carl-Henrik Svanberg,** chairman of the Swedish AI Commission

AI Preparedness Index
IMF, April 2024 (Index max = 100)



AI Capacity Index, Government Strategy
Tortoise, 2024 (Index max = 100, global leader)

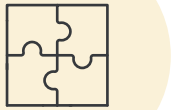


Note: The AI Preparedness Index (AIPI) assesses the level of AI preparedness based on a rich set of macro-structural indicators that cover the countries' digital infrastructure, human capital and labour market policies, innovation and economic integration, and regulation and ethics.
Source: Implement Economics based on the European Commission (2024), IMF and Tortoise Media Global AI Index, 2024.

Five key barriers hamper progress in Sweden

This report draws on research from Sweden, leading Nordic countries, and the European Commission to identify five key barriers to be overcome for the AI adoption to be successful:

PART I
Making the potential executable



Fragmented decision-making

Fragmented decision-making in government leads to many pilot projects without achieving scalable results

Fear of breaking the rules

Public institutions struggle to use advanced AI tools due to strict regulation and EU compliance requirements

Ensuring public support

Implementation of AI solutions in public administration requires support by citizens and employees

PART II
Getting the critical enablers in place

Cloud uncertainty

Public institutions hesitate to adopt AI tools due to regulatory uncertainties related to cloud computing

A risk of vendor lock-in

Vendor lock-in can cause significant hidden costs for public institutions

This report details solutions to each of the above-mentioned barriers

Think ‘task-based’

Think ‘risk-conscious’

Think ‘impact-oriented’

Create cloud clarity

Make smart procurement choices

Table of contents

Think ‘task-based’

Think ‘risk-conscious’

Think ‘impact-oriented’

PART I

Making the potential executable

In designing a new national AI strategy, the Swedish government should think **task-based, risk-conscious** and **impact-oriented** to realise the potential of generative AI in public administration.

PART I

Think ‘task-based’

- Adopt a task-based framework to achieve scalability in AI solutions.

> *The Swedish governance model, with its highly delegated structure, has limitations when addressing cross-sectoral challenges like AI.*
>
> **The AI Commission** in Roadmap for Sweden (2024)

Fragmented decision-making across government levels leads to numerous pilots with no scalable impact

Despite great opportunity to benefit from AI use in public administration, fragmented decision-making presents three main challenges:

Fragmented governance and isolated investments

Sweden's decentralised governance model, where authorities operate independently, has led to fragmented decision-making and uncoordinated investments. Without clear national leadership or a central strategy, resources are diluted across numerous isolated pilots. This approach prevents authorities from leveraging shared successes and scaling AI solutions across the public sector.

Absence of common infrastructure

The lack of shared infrastructure for AI development has forced authorities to work in silos, choosing isolated solutions that are often incompatible with broader systems. This fragmentation is further exacerbated by the absence of open standards and APIs, which could otherwise facilitate interoperability between solutions. Without a unified platform for AI experimentation and deployment, collaboration and resource optimisation remain unattainable.

Barriers to data sharing

While Sweden is well equipped with data, significant legal and technical barriers hinder its accessibility and sharing. The Swedish Public Access to Information and Secrecy Act (OSL) restricts data exchange between authorities, and the interpretation of GDPR is often seen as more restrictive in Sweden compared to other EU countries. These obstacles prevent authorities from leveraging data effectively for AI innovation.

Source: Implement Economics based on the Swedish AI Commission (2024)

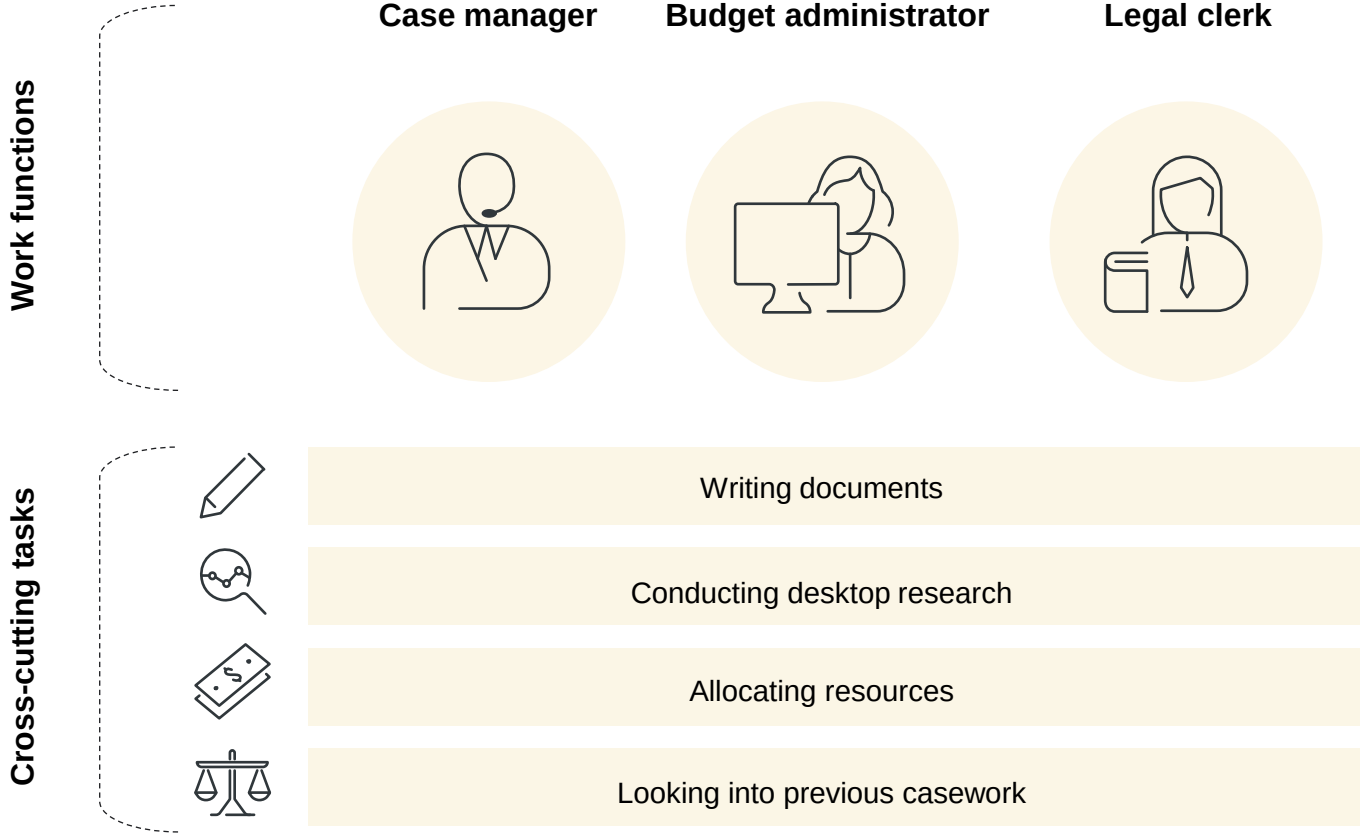
Cross-cutting tasks form the basis of most public administration jobs

The public sector is the largest employer in Sweden, with public administration employees making up around a fifth of the sector. Despite the diversity of the roles and fields of these employees, they carry out similar key tasks that follow comparable processes.

For example, tasks such as case handling are carried out by employees with varying job titles across multiple institutions.

To effectively implement AI in public administration, a task-based framework that focuses on shared processes is essential for achieving scalable solutions.

Examples of work functions and cross-cutting tasks in public administration



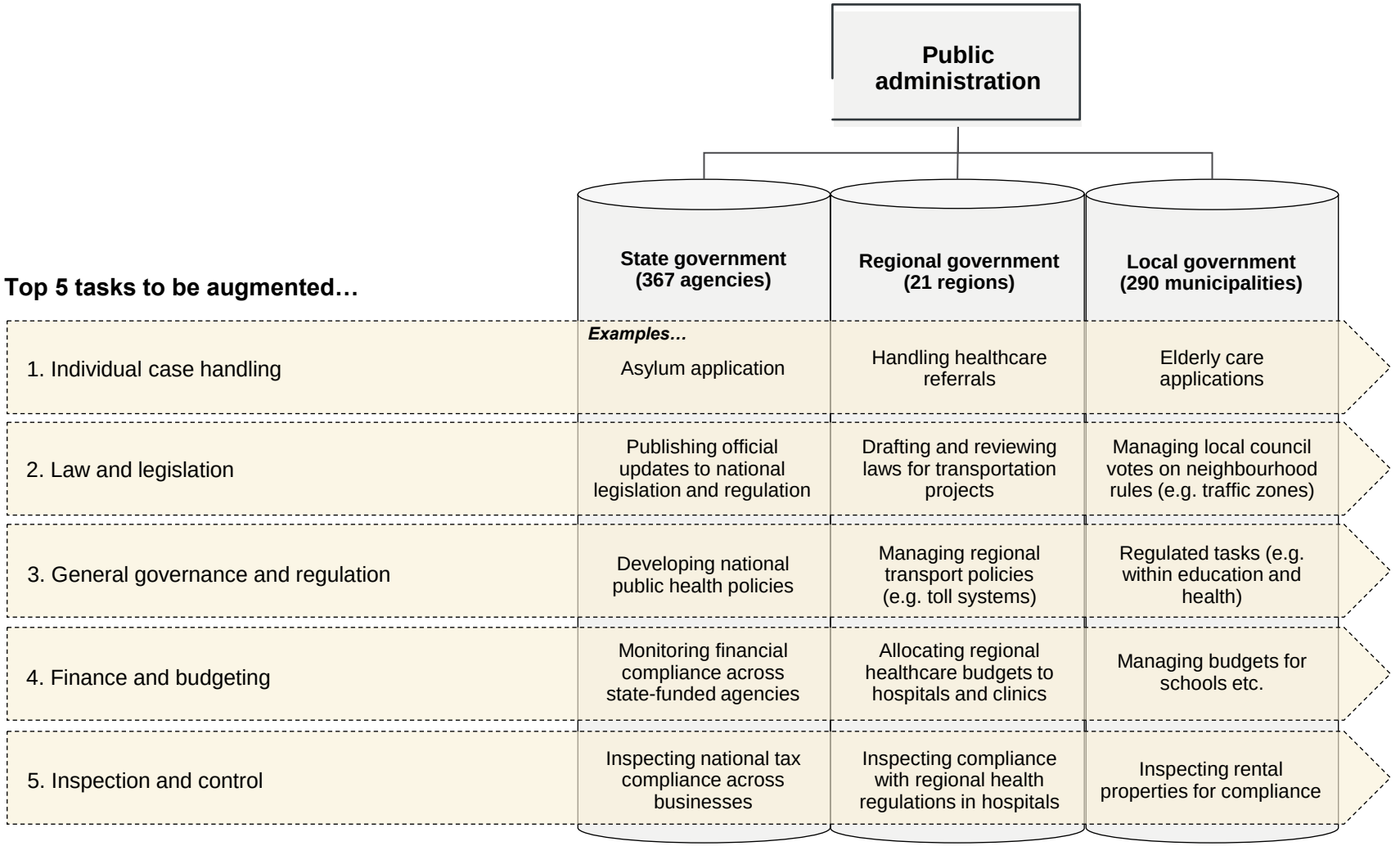
Source: Implement Economics based on Eurostat and O*NET.

Generative AI has the potential to augment tasks performed across all public institutions in Sweden

The Swedish public sector spans 367 government agencies, 21 regions and 290 municipalities. Within the public sector, public administration makes up ~420,000 employees.

The tasks in public administration hold a large degree of similarity, creating an ideal opportunity to implement scalable AI solutions that can simultaneously benefit multiple public institutions, enhancing efficiency and collaboration.

Structure of the public administration in Sweden



Source: Implement Economics based on SKR, Swedish Institute, O*NET, Briggs & Kodnani (2023) and Statistics Sweden.

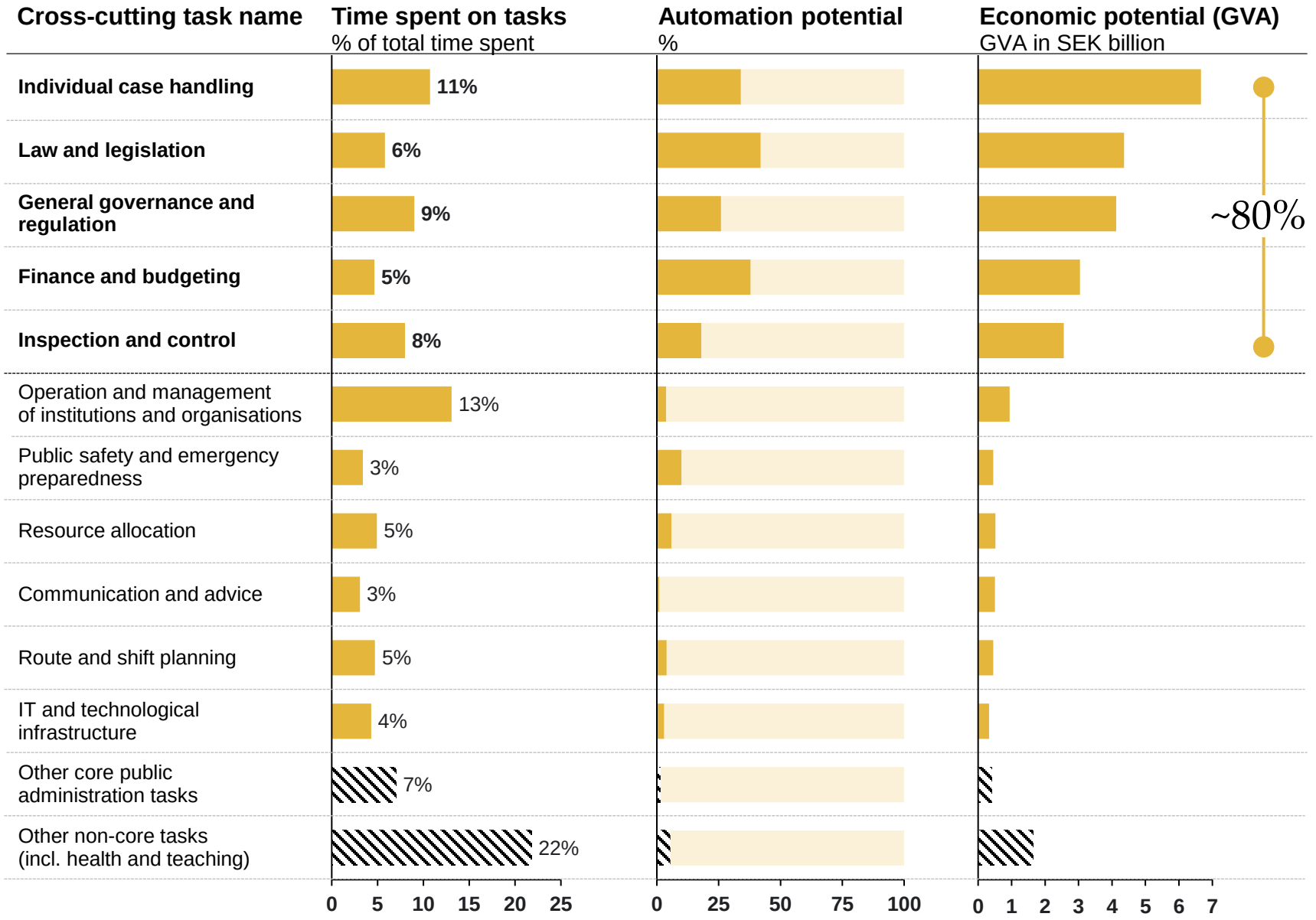
Focusing on the top five cross-cutting tasks could realise 80% of the potential

Implement Economics has analysed the potential of generative AI within public administration at task level, using granular employment data from the Swedish statistical authority and detailed occupation descriptions.

We find that the lion's share of the potential in public administration is found within five large cross-cutting tasks:

- Individual case handling
- Law and legislation
- General governance and regulation
- Finance and budgeting
- Inspection and control

Although these tasks are estimated to make up around 40% of the time spent by Swedish civil servants, they account for about 80% of the economic potential due to the high degree of automatability.



Note: Percentages may not sum to 100 due to rounding. There is much uncertainty around the capability and adoption timeline of generative AI. The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs & Kodnani (2023) with granular Swedish employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET. The automation potential of cross-cutting tasks may vary from country to country due to the occupation composition of the workforce carrying out the tasks.
Source: Implement Economics based on O*NET, Briggs & Kodnani (2023) and Statistics Sweden.

Achieving scalability while balancing local needs

Approximately 80% of the potential lies in the top five key tasks shared across institutions. However, AI solutions must also address local needs to remain effective.

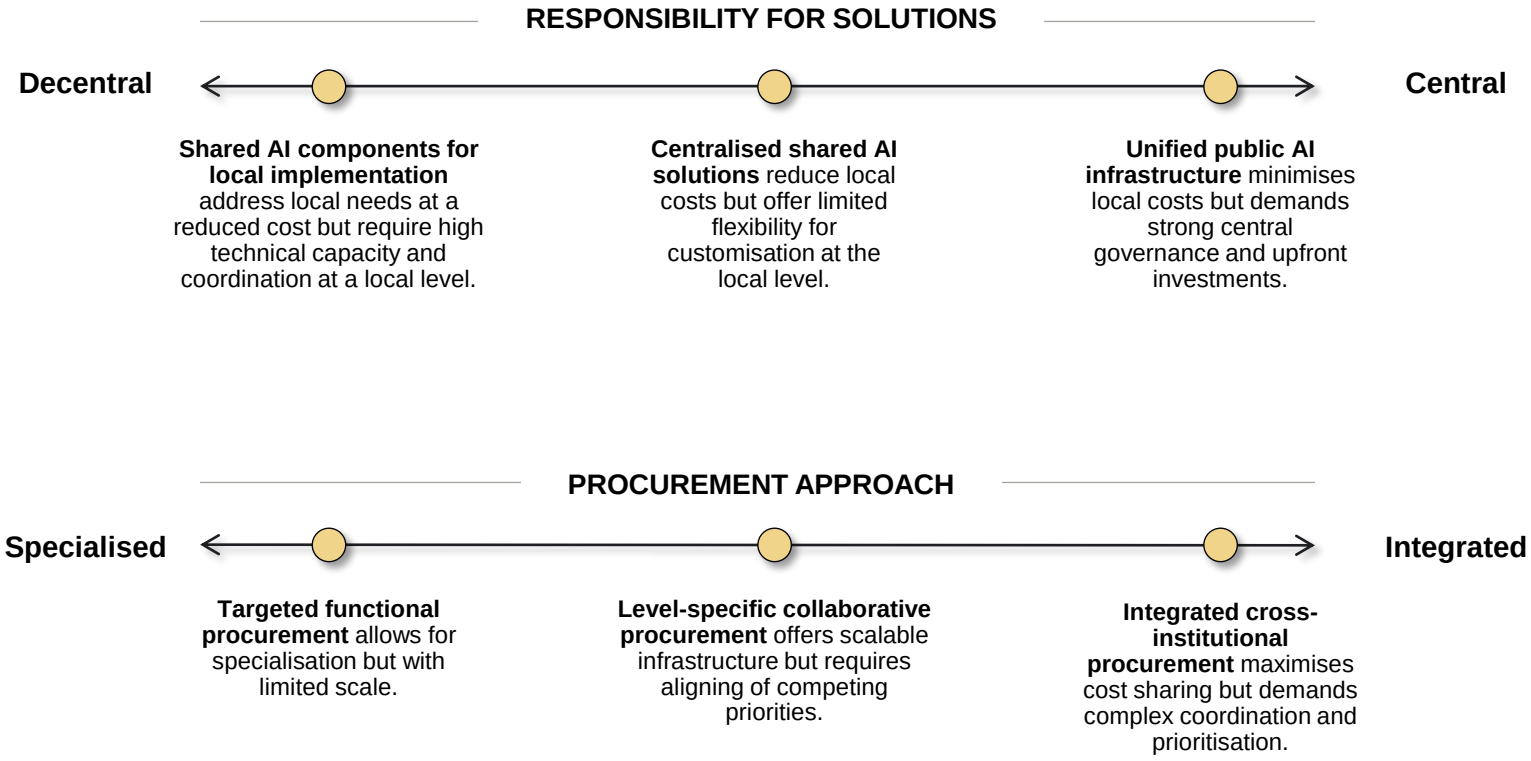
To maximise impact, public administrations should prioritise scalable solutions that avoid duplication, while ensuring flexibility to meet local requirements.

The government should clearly define roles and responsibilities across levels of government to ensure alignment with users, while ensuring scalability.

> If all public actors had to develop their own AI capability, it would take an unacceptably long time and lead to further fragmentation with different solutions of varying security and quality. It would also be an inefficient use of limited resources – to the extent that it would be possible at all.
>
> **The AI Commission** in Roadmap for Sweden (2024)

To address fragmented decision-making and reduce inefficiencies caused by siloed AI investments, strategic decisions should focus on cross-institutional AI procurement.

Strategic dimensions in public AI procurement



Source: Implement Economics based on the Swedish AI Commission (2024)

PART I

Think ‘risk-conscious’

- Low-risk and internally-oriented use cases can realise 20% of the total AI potential in public administration.

Public institutions are risk-averse and face a complex regulatory landscape

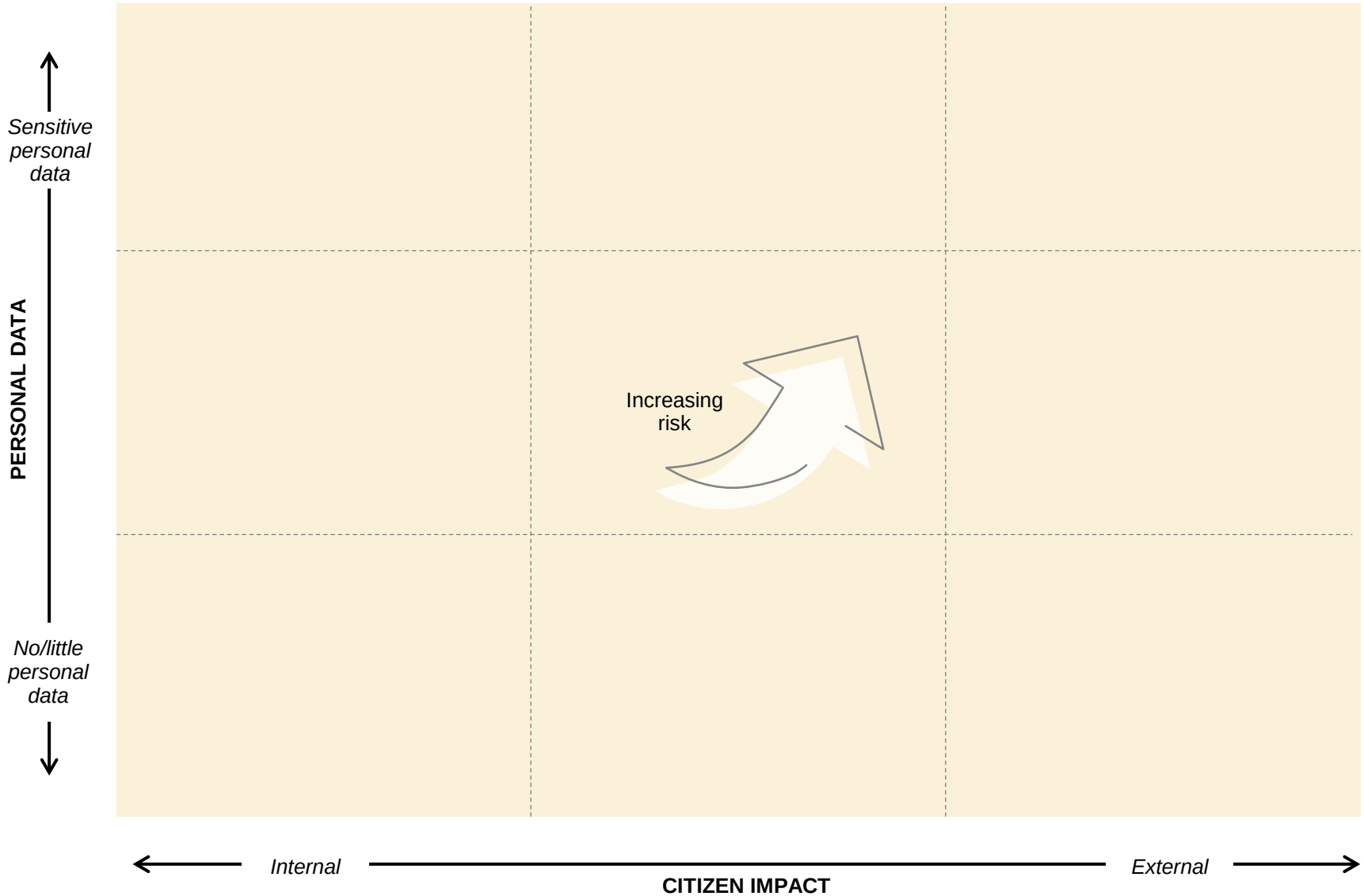
Implementing AI in public institutions is complicated by the existence of overlapping regulations, such as GDPR, the AI Act, and the AI Code of Practice, which can create uncertainty and inaction.

Leaders in public administration are aware of the risks. However, being overly risk-averse or failing to assess risks properly can lead to inaction.

A handful of low-risk applications of AI that do not use personal data and are internally-oriented exist. These are a good place to get started with tangible adoption of generative AI applications prior to addressing those that both use personal data and are externally-facing.

> […] many European players hesitate to use AI platforms based on American cloud services, even though these are often world leaders. This problem seems to be particularly pronounced for Swedish actors […].
>
> **The AI Commission** in Roadmap for Sweden (2024)

The regulatory challenges can be understood in terms of two dimensions of risk



Source: Implement Economics based on GDPR EU.

Low-risk AI applications account for 20% of the potential in public administration

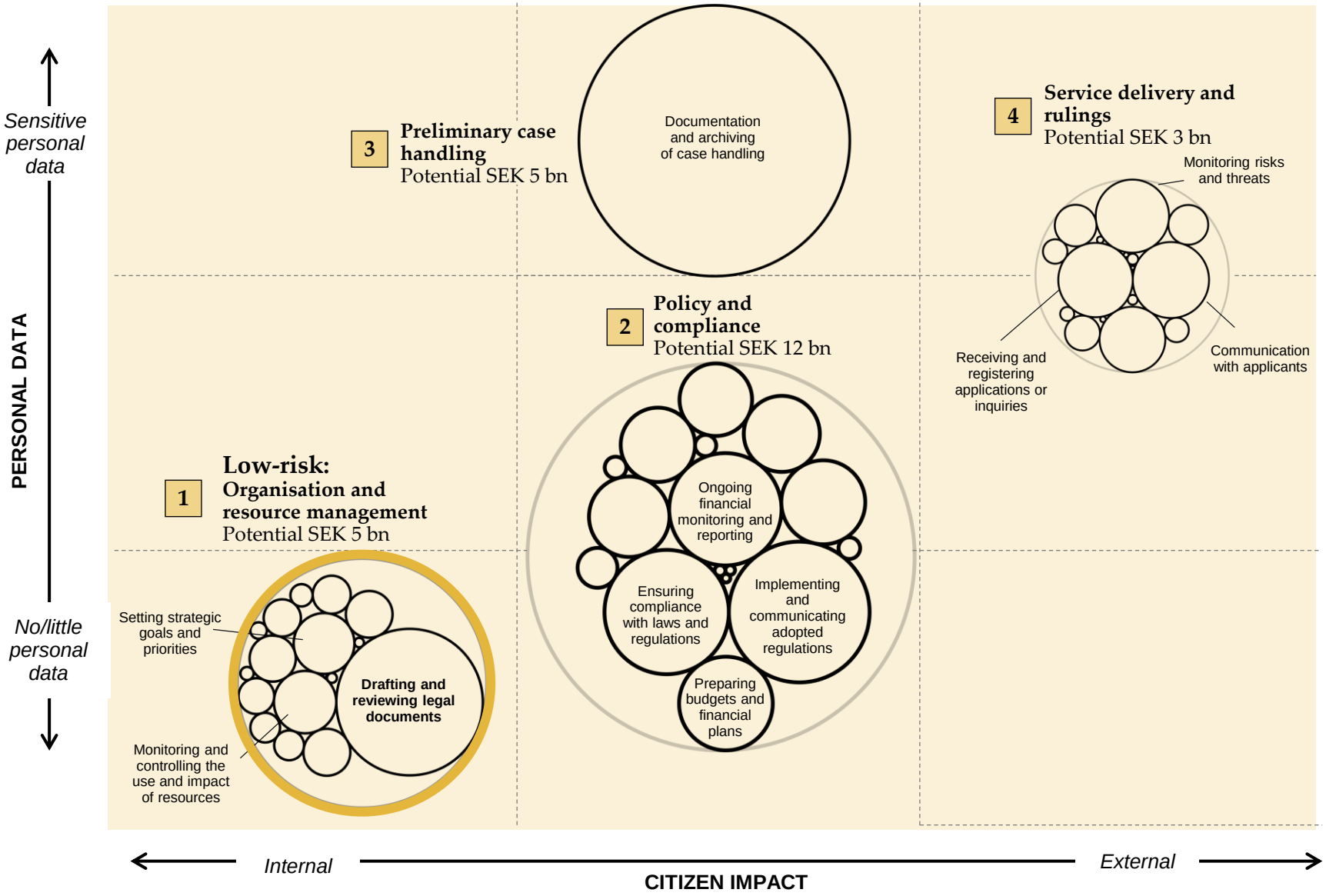
The risks of key cross-cutting tasks are mapped across two dimensions:

- The degree of citizen impact (internally- vs. externally-oriented AI applications)
- The sensitivity and use of personal data

This mapping produces four clusters of potential AI, which can be used as a roadmap for AI adoption in public administration:

1. **Organisation and resource management** applications, which are very low-risk and should be addressed in the coming years.

   Our analysis shows that **SEK 5 billion**, equivalent to 20% of the economic potential, lies in these low-risk, internal tasks.
2. **Policy and compliance** applications that use some personal data but are not completely externally-oriented.
3. **Preliminary case handling,** which uses considerable sensitive data but is not directly citizen- and business-facing.
4. **Service delivery and rulings**, which are directly citizen- and business-facing and use considerable personal data.



Note: The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs & Kodnani (2023) with granular Swedish employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET.
Source: Implement Economics based on O*NET, Briggs & Kodnani (2023) and Statistics Sweden.

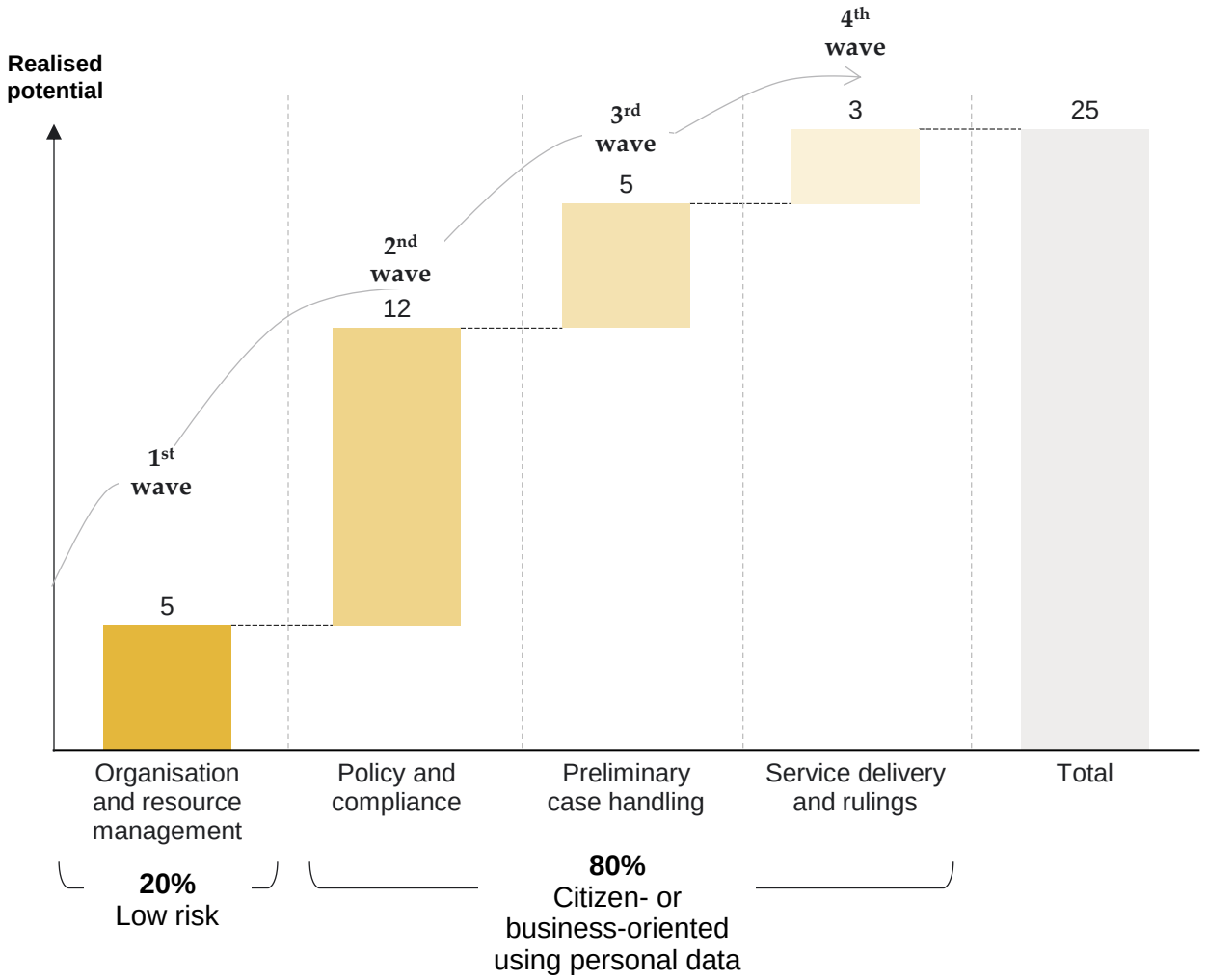
Start with the lowest risk and work up to tasks with high citizen impact

In a first wave, public authorities could consider implementing low-risk, internal AI applications that do not involve sensitive data. These initiatives offer valuable learning experiences and develop AI capabilities needed for more complex, external-facing solutions.

Simultaneously, central government should ensure that critical enablers are in place to begin adoption of the 2nd and subsequent waves of advanced AI applications, which make up the remaining 80% of the potential.

While the greatest immediate potential for AI in public administration lies within internal administrative processes, the broader application of AI in citizen- and business-facing services holds transformative potential for the public sector as a whole.

Potential value creation from generative AI in public administration in Sweden
SEK billion at widespread adoption



Note: There is much uncertainty around the capability and adoption timeline of generative AI. The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs & Kodnani (2023) with granular Swedish employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET. Our estimate is the isolated potential of generative AI at widespread adoption. The estimated boost from generative AI may not be fully additive to growth projections.
Source: Implement Economics based on Statistics Sweden, O*NET, Briggs and Kodnani (2023)

PART I

Think ‘impact-oriented’

- Use cases directly or indirectly impacting citizens or businesses constitute 80% of the AI potential in public administration

The Swedish government must ensure public support in the AI transformation

A recent survey highlights that Swedes recognise the positive potential of AI, particularly in healthcare and education. However, scepticism remains regarding broader societal impacts such as the effects on job opportunities and inequality.

Additionally, survey data shows that only 19% of Swedes trust public authorities to ensure AI serves the public interest, while 50% express distrust.

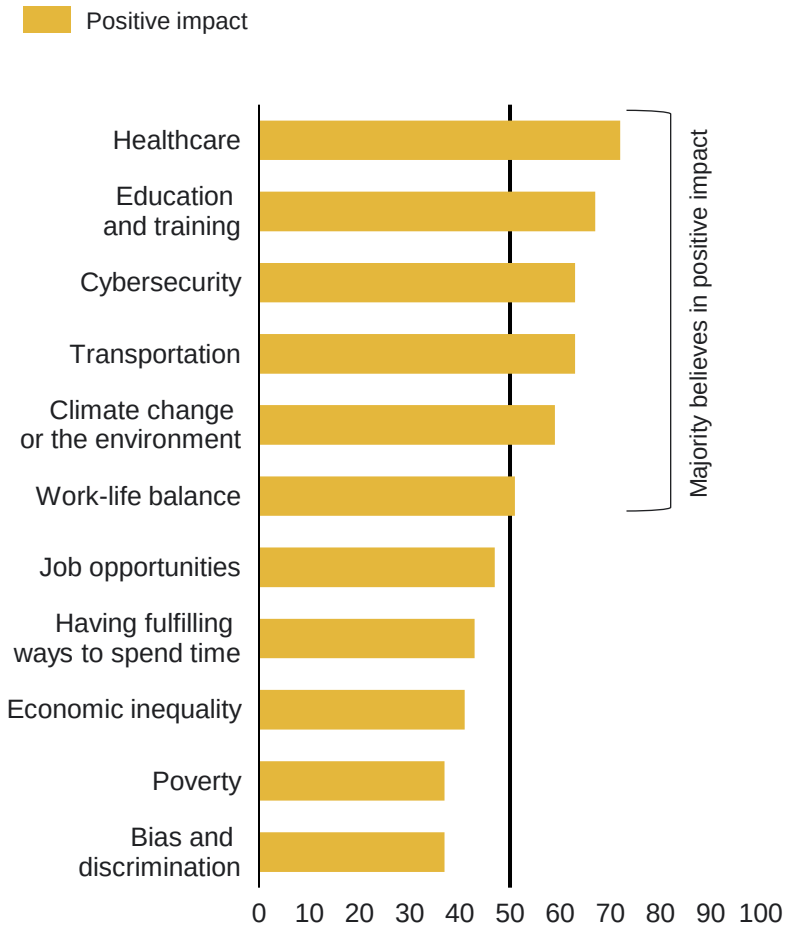
To gain public support for AI in government, it is crucial to implement AI applications with clear benefits for citizens and businesses, in contrast to technical and narrow cost-cutting benefits.

However, the number of implemented AI use cases delivering direct positive impact to citizens or businesses remains relatively low.

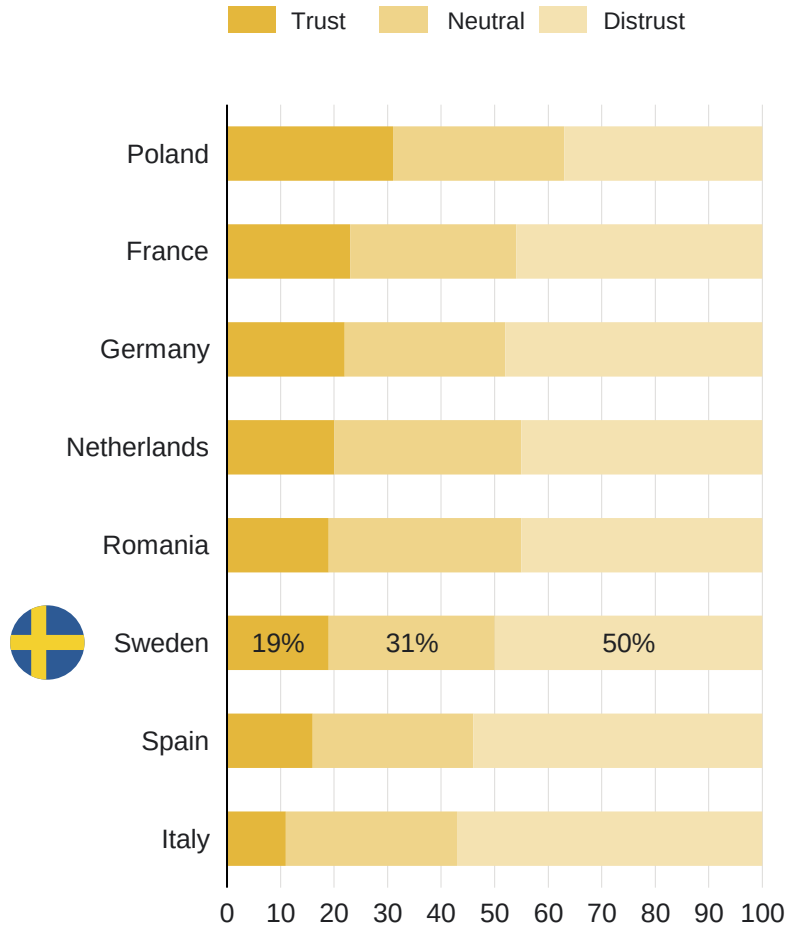
47%

of Swedes support AI tools being used to help process government and customer service requests faster

How do you think AI will impact each of these areas in the next 25 years? (positive/negative/no impact)
%



Trust that national governments will ensure that AI is in the best interest of the public



Note: Left figure: The question asked in the survey was: *Please indicate whether you think AI will have a positive, negative, or no impact on each of these areas in the next 25 years.* The survey was conducted in Sweden in 2024. Right figure: The question asked in the survey was: *How much do you trust the following entities in ensuring that AI is in the best interest of the public?* Survey includes 4,008 respondents in total and was carried out in 2021.
Source: Implement Economics based on survey data from Scantamburlo et al. (2023)

Generative AI can save time and hassle for citizens when interacting with public administration

By integrating generative AI into public administration, services can become faster, smarter and more accessible for citizens

Citizens

Examples of interactions	Examples of how generative AI can improve interactions
Applying for personal identification documents – e.g. passport, ID cards or driver's licence.	Generative AI can guide citizens through the application process, providing instructions in text, speech, images, and multiple languages.
Registering life events – e.g. births, deaths, marriages or changes in civil status.	Generative AI can help streamline data entry by auto-updating civil registries across systems, reducing delays for citizens.
Accessing social benefits – e.g. applying for unemployment benefits, pensions or housing assistance.	Generative AI can evaluate applications faster by analysing eligibility criteria, ensuring quicker benefit payouts.
Paying taxes – e.g. managing property and income tax payments or filing annual tax returns etc.	Generative AI can offer step-by-step guidance, answer questions in real time, and provide tailored, multimodal support.
Enrolling in public education – registering children for day care, schools or applying for student loans.	Generative AI can provide personalised guidance on enrolment steps, auto-fill application forms, and explain options in multiple languages.
Address changes or housing permits – e.g. notification of move or applying for building permits.	Generative AI can pre-fill forms, suggest required documents based on case details, and guide through the proces, reducing effort and errors.
Voting and civic participation – e.g. attending public hearings.	Generative AI can simplify public hearing notices, translate key information, and help citizens draft questions or responses.
Resolving disputes or fines – e.g. appealing decisions, paying traffic fines or addressing legal issues.	Generative AI can process and draft legal documents, reducing wait times for citizens seeking resolution.

Generative AI can simplify businesses interactions with public administration

By assisting in documentation, reporting and application processes, generative AI can save time and money for businesses when interacting with public administration

Businesses

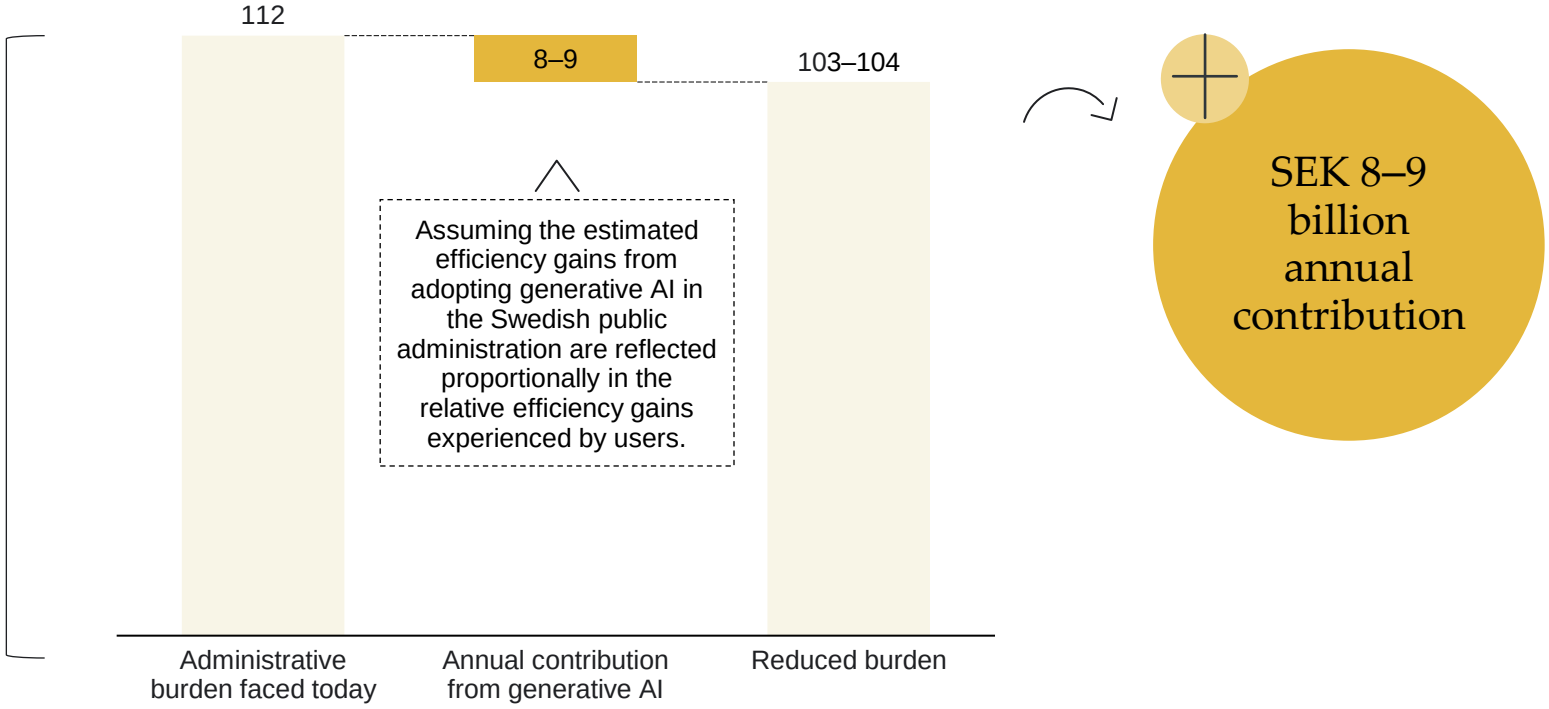
Examples of interactions	Examples of how generative AI can improve interactions
Applying for government contracts – e.g. submitting tenders or meeting compliance criteria.	Generative AI can provide tailored templates and compliance checklists to streamline bid preparation.
Obtaining or renewing permits – e.g. applying for operating licences, construction permits, or health and safety certifications.	Generative AI can act as a virtual assistant, guiding users through form completion.
Applying for financial support – e.g. grants, subsidies, innovation funding, or support programmes.	Generative AI can streamline funding applications by suggesting tailored inputs and ensuring alignment with programme criteria.
Claiming financial rebates – e.g. claiming tax refunds or rebates.	Generative AI can analyse receipts and flag eligible expenses, helping businesses maximise their rebate potential.
Filing regulatory compliance reports – e.g. submitting required reports for business operations or audits.	Generative AI can automate report creation, transforming raw data into polished submissions.
Collaboration with employment services – e.g. accessing pool of jobseekers and participation in subsidised upskilling programmes.	Generative AI can bridge the gap between businesses and jobseekers by matching skills to needs.
Navigating pre-qualification processes – e.g. completing steps to demonstrate eligibility for specific programmes or services.	Generative AI can simplify eligibility checks, offering step-by-step guidance and pre-screening data for quick approvals.
Submitting applications for certifications – e.g. applying for professional, compliance, or operational certifications.	Generative AI can help businesses assemble the perfect submission, identifying key documents and formatting tips.

Generative AI can reduce Swedish companies' administrative burden by SEK 8–9 billion

Swedish companies are facing a significant administrative burden, defined as the effort required to supply mandatory information under national and EU laws and regulations. Generative AI has the potential to significantly reduce this burden.

Administrative burden faced by Swedish companies
SEK billion at widespread adoption

1.8%
of GDP
Administrative burden for Swedish companies



SEK 8–9 billion annual contribution

Perspective

Beyond administrative cost savings, generative AI in public administration is expected to bring additional business impacts, such as:

- Freeing up resources for other value-creating tasks.
- More efficient allocation of resources.
- Increased speed and flexibility in company processes.

Note: There is much uncertainty around the capability and adoption timeline of generative AI. The estimation of the potential of AI across key cross-cutting tasks is based on an augmentation of Briggs & Kodnani (2023) with granular Swedish employment data and an expert-assessed, exhaustive framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET. Our estimate is the isolated potential of generative AI at widespread adoption. The estimated boost from generative AI may not be fully additive to projections. Estimates rely on the economic value of the regulatory burden in Sweden in 2010.
Source: Implement Economics based on the Swedish Growth Agency, Statistics Sweden, O*NET and own calculations.

Case: The Swedish Tax Agency has reduced waiting time on business registrations by 3.5 days, and an AI-powered chatbot is handling about 50% of its conversations outside opening hours

The challenge

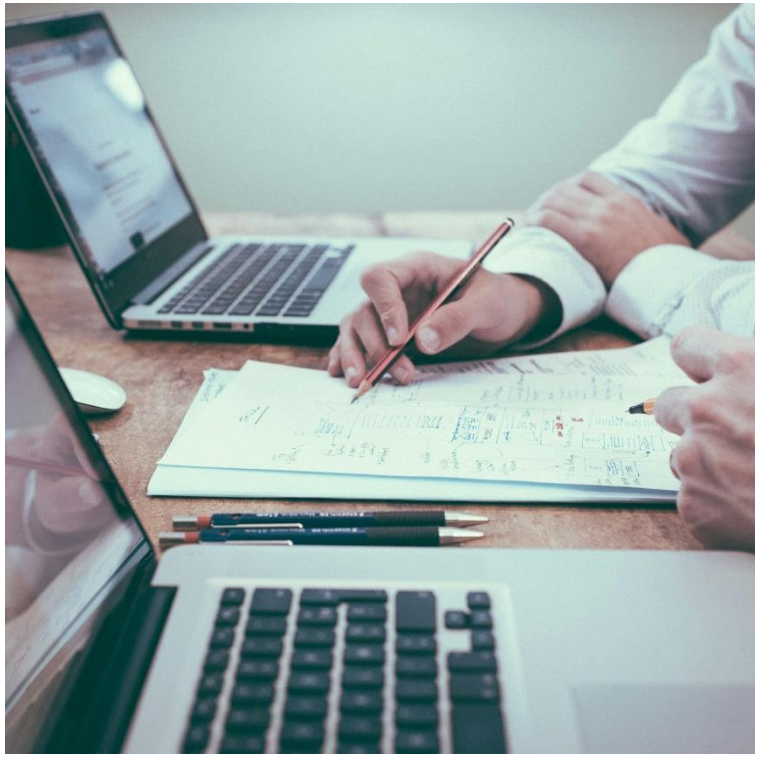
- Long waiting times on phone and e-mail.
- Citizens and businesses could only contact during opening hours of 9 till 3.
- Bottlenecks during tax deadlines.

The solution

- Almost 30 AI services deployed.
- AI chatbot answering tax and personal record questions.
- 24/7 service to assist citizens and businesses any time.

The impact

- Chatbot handling ~500,000 conversations annually.
- ~50% of chatbot conversations answered outside opening hours.
- Waiting time for business registrations reduced by ~3.5 days.



Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on Swedish AI Commission (2024) and Skatteverket Annual Report 2022 (2023).

Case: In Belgium, 92% of users are satisfied with the service from an AI-powered recruitment solution, improving job matching and saving time for citizens

The challenge

- Skills gap between workforce and employers' needs.
- Traditional recruitment process is time-consuming and resource-intensive.
- Lack of personalisation and customisation in job suggestions.

The solution

- AI generated suggestions for upskilling and training.
- Map out where there is the highest probability of finding work.
- Extensive personalisation and pre-filling of questionnaires.

The impact

- 92% of citizens are satisfied with their contact with the job centre.
- 80% reduction in time spent on job match questionnaires.

Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Sources: Implement Economics based on VDAB annual report (2023) and Superlinear and VDAB reinvent orientation test with Artificial Intelligence.

Case: Digital case handling has reduced waiting time on building permits for companies and citizens by more than 40% in Denmark's Municipality of Copenhagen

The challenge

- Long waiting times on building permits.
- Complex legislation.
- Rising stock of unhandled cases.

The solution

- An AI assistant is used to navigate complex legislation.
- Documents drafted for case handlers using generative AI.
- Robots automatically execute parts of the case handling.

The impact

- Waiting time reduced by 4.5 months (more than 40%).
- Stock of unhandled cases reduced by more than 70%.
- Released time spent on guiding applicants in the most complex cases.

Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on Kommune (2023).

Case: Estonia has a bold vision for generative AI, and currently citizens and companies can use Bürokratt, a network of virtual assistants providing six different services across eight institutions

The ambition

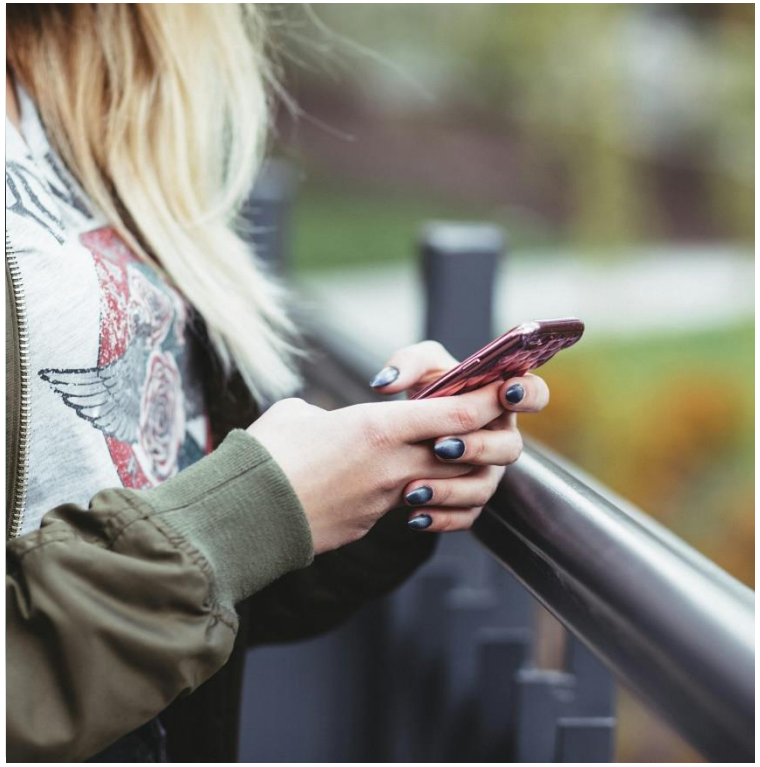
- 90% of citizen requests should be handled by virtual assistants in 2026.
- 70% reduction of citizens' administrative burden by 2030.
- Digital government should be cloud-native by 2030.

The solution

- A network of virtual assistants built on a scalable architecture.
- Modular development based on continuous citizen feedback.
- Data security and privacy by design using a common data infrastructure.

The impact

- Six different services across eight institutions.
- Multichannel virtual assistants can be accessed via voice and text.
- Private developers can integrate and extend Bürokratt's capabilities.



Note: Most use cases implemented are supported by other initiatives, an important consideration when evaluating their overall impact.
Source: Implement Economics based on Estonia's Ministry of Economic Affairs and Communications (2024).

Summary of part I

In designing a new national AI strategy, the Swedish government should think …

‘Task-based’ > Prioritise cross-cutting tasks to achieve economies of scale while addressing local needs. Implement a cross-institutional AI procurement strategy with clear roles and responsibilities across government levels to ensure user alignment and scalability.

‘Risk-conscious’ > Start with low-risk, internal AI solutions, and gradually move to more user-sensitive, external AI applications to realise the bulk of the potential.

‘Impact-oriented’ > Concentrate on AI applications with real user impacts, i.e. solutions that reduce the time and hassle of citizens’ and businesses’ interactions with public administration.

Create cloud clarity

Make smart procurement choices

PART II

Getting the critical enablers in place

Computing power for training AI models and use of AI services is becoming an increasingly important part of modern society. The AI Commission therefore believes that it should have the same status as other socially critical infrastructure, such as railways and electricity grids.

The AI Commission in Roadmap for Sweden (2024)

Public administrations need to address critical barriers to enable the opportunity of generative AI

To benefit from state-of-the-art AI solutions, public administration relies on…

Smart regulations

AI adoption at scale requires simplified rules and harmonised implementation

- **Simpler, light, faster.** Simplified rules and legal certainty are key enablers of AI adoption, as highlighted by the Competitiveness Compass.
- **Ethical guidelines.** AI systems must adhere to principles of transparency, fairness, and accountability to maintain public trust as addressed in the Guidelines for generative AI in public administration.
- **Interoperability standards.** Harmonised rules across jurisdictions ensure AI solutions can be implemented seamlessly at scale.
- **Focused on outputs.** Regulation should target AI outputs, ensuring quality while preventing harm.

Data

AI needs data and the ability to combine data from different sources

- **High-quality data is essential** for developing and running high-performing AI models.
- **Workflow data must be accessible** to support employees in their daily operations.
- **Data-sharing frameworks.** Mechanisms should facilitate safe and efficient data exchange across government entities and private partners.

Infrastructure and tools

AI builds on large models, tailored tools, computing power and data storage

- **Computing resources.** Cloud services providing computing power and storage capacity to develop and run AI models.
- **Advanced AI models.** Large language models that are released at regular intervals, for example Gemini from Google or Open AI's GPTs.
- **AI platforms and tools.** These are often developed from the large language models. These enable public administrations to integrate AI into their processes and services.
- **AI applications.** Ready-to-use cloud solutions delivered via platforms.

Skills

AI works with humans, and public employees need the skills to work effectively with AI

- **Broad AI competencies** are essential for civil servants to understand when and how to use AI. From a management perspective, effective change management is crucial for successful adoption.
- **Specialised expertise and cross-disciplinary teamwork.** Building capacity for AI roles such as data scientists and ML engineers while fostering collaboration between IT, legal, and policy to ensure effective AI integration.
- **IT procurement competence.** Strong capacity of procurement professionals to navigate the complexities of AI and multi-cloud technologies.

…yet two key barriers must be overcome to enable effective generative AI adoption in public administration:

Regulations create uncertainties around data usage and cloud computing

Specialised IT requirements lead to a risk of vendor lock-in

These two barriers are addressed on the next pages.

Source: Implement Economics based on The European AI Commission (2024) and Draghi (2024).

PART II

Create cloud clarity

- Privacy and security concerns can lead to a misconceived preference for on-prem solutions.

> *We propose that the public **actors' ability** to use cloud services offered by companies outside the EU be clarified.*
>
> **The AI Commission** in Roadmap for Sweden (2024)

Public authorities face uncertainty in AI adoption due to conflicting EU data and cloud regulations

The EU enforces strict regulations to safeguard privacy and protect individual rights in AI and data usage…

EU regulations, such as GDPR and the AI Act, are designed to safeguard citizens' rights by enforcing strict compliance on personal data protection and ethical AI use, ensuring transparency, accountability, and fairness in digital systems.

…however, the complexity of these rules creates uncertainty, hindering public authorities from adopting AI solutions

Lack of clarity around data usage. The lack of clear guidelines on data use and inter-agency sharing creates hesitation, delaying innovation, and contributes to a fragmented AI landscape.

Uncertainty around cloud-based solutions. Fragmented and complex rules with unclear interpretations make it difficult for authorities to know whether widely used cloud infrastructure meets legal obligations. This lack of clarity often results in hesitation, costly delays, and the adoption of suboptimal solutions.

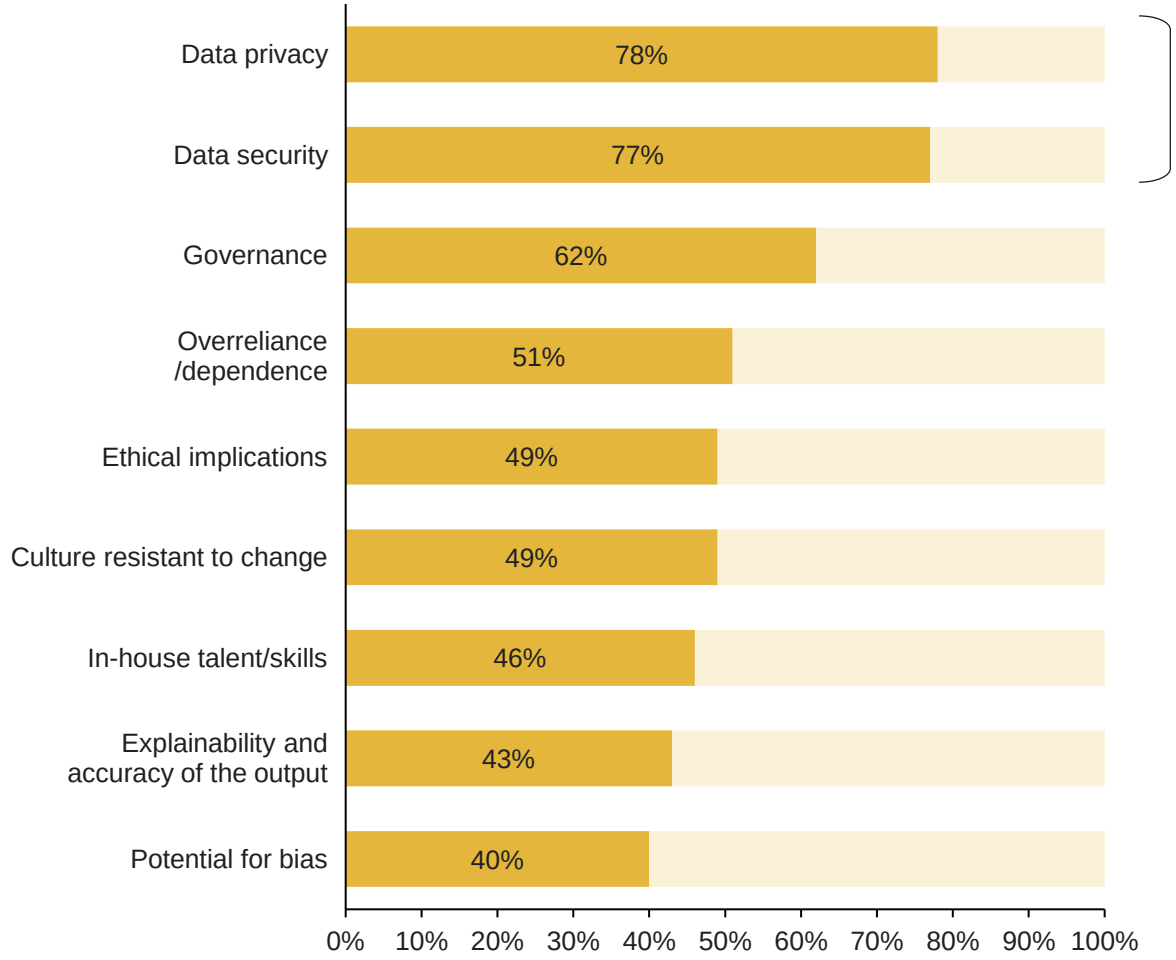
Source: Implement Economics based on European Commission (2024).

Authorities hesitate to adopt AI tools due to concerns over data privacy and security

European organisations are concerned about leveraging cloud-based AI tools and sharing data across multiple stakeholders due to stringent data privacy and security regulations.

> Computing power is also needed, in the form of on-premises computers for particularly sensitive information, and utilisation of cloud services. The latter requires clarification of what is legally possible and what is not.
>
> **The AI Commission** in Roadmap for Sweden (2024)

What are your concerns regarding the usage of generative AI in your organisation?
% of respondents among government leaders globally



This highlights the critical role of AI infrastructure and tools in scaling generative AI solutions and emphasises the need for proactive strategies to ensure responsible use.

Note: The survey was conducted by Coleman Parkes from February to April 2024, targeting 1,600 decision-makers in generative AI strategy or data analytics across government organisations and other key sectors globally. The results shown specifically reflect responses from government organisation respondents.
Source: Implement Economics based on SAS Institute (2024).

A secure and efficient cloud infrastructure is crucial for AI use at scale

AI infrastructure for the public sector must be:

- **Efficiently scalable** to accommodate new solutions and fluctuations in demand.
- **Adaptable** to integrate emerging leading technologies and capable of operating on a multi-cloud level.
- **Secure,** ensuring data privacy and leveraging best-in-class cybersecurity capabilities to protect against the evolving threat landscape.
- **Interoperable**, enabling seamless collaboration and data exchange between authorities.

Given the high computational and specialised hardware requirements for state-of-the-art AI, adapting on-premises supercomputers is both prohibitively expensive and inefficient.

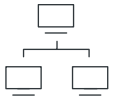
Widespread AI adoption in public administration depends on a secure, robust cloud infrastructure that meets these unique demands. Therefore, the most cost-efficient and scalable solutions are best sourced from specialised suppliers.

To achieve scalability, adaptability, security and interoperability, the AI infrastructure must provide:

Compute capacity

Leading AI models

Data storage and pipelines



Network and connectivity

AI tools and applications

Security measures and monitoring

Sweden's AI Commission identifies a critical need for robust compute and cloud infrastructure to scale AI in the public sector. While national initiatives like the proposed AI-verkstad provide an important foundation for testing, current capacity is insufficient for AI deployment at scale. To support the capacity needed for broad AI adoption, Sweden will need to supplement national infrastructure with scalable cloud platforms and apply a differentiated approach to align security levels with specific task requirements.

Source: Implement Economics based on the AI Commission in Roadmap for Sweden (2024).

Cloud should provide a cost-effective AI infrastructure adaptable to technological advancements

To effectively use generative AI in public administration, substantial computing resources are needed.

On-premises infrastructure demands significant upfront investment and risks becoming outdated before costs are recovered, locking institutions into current technology levels.

In contrast, cloud infrastructure offers flexibility, lower initial costs, and scalable usage, allowing continuous adoption of new technologies.

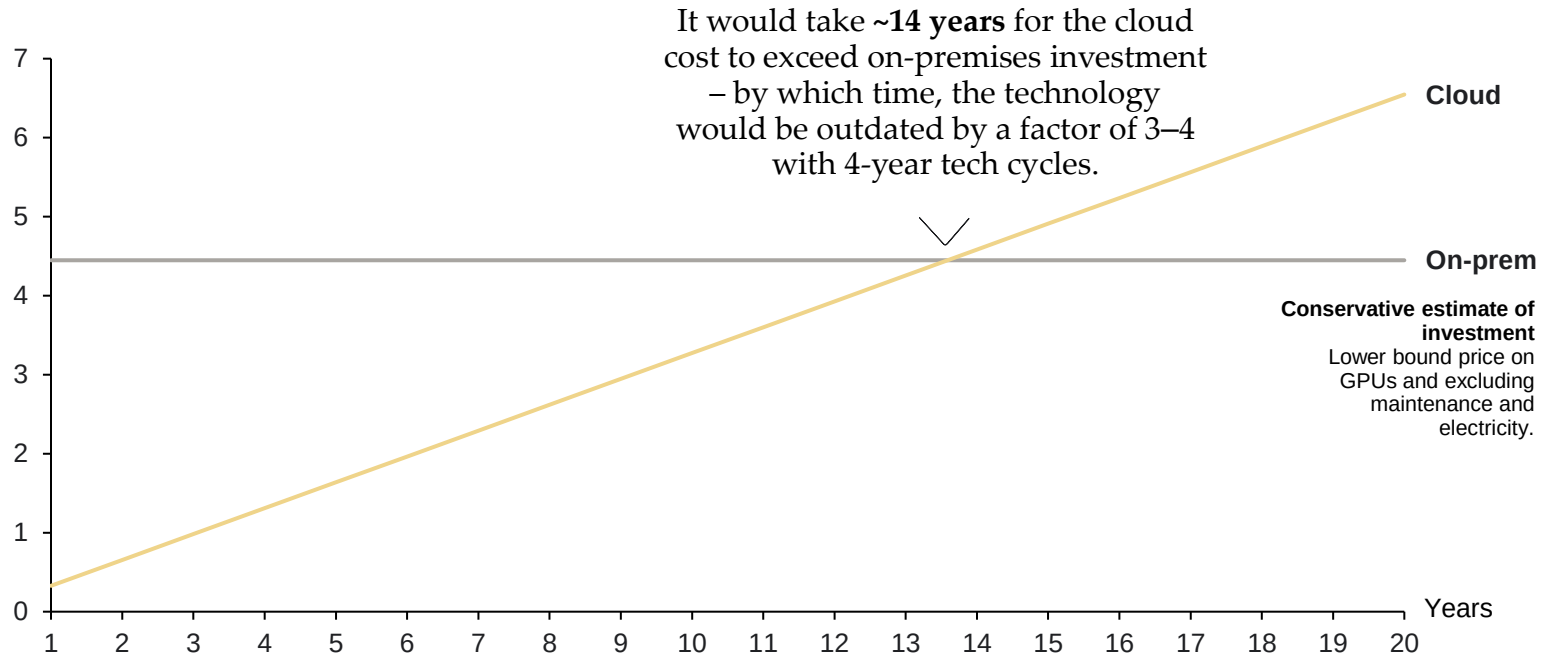
Computer performance has improved by 160% in around two years, and AI is a fast-evolving technology that will require constant updates to compute capacity.

Example Swedish Tax Chatbot

3.4 million citizen inquiries handled by the Swedish Tax Authority, *Skatteverket,* each year. These could be automated by an AI-based chatbot, either in the cloud or on-premises.

~40 GPUs are needed to handle the average flow of requests, costing around SEK 4.5 million for on-prem investment, compared to an average annual cost of SEK 0.3 million for a cloud service.

Accumulated cost of chatbot implementation (illustrative)
SEK million



Note: Inquiries are assumed to be evenly distributed across 16 hours a day and every day of the year, resulting in a constant load throughout the year. Each inquiry is estimated to average 750 words, with approximately two tokens per word, leading to a total of approximately 5.1 billion tokens per year based on an annual volume of 3.4 million inquiries. For cloud-based deployment, the cost is estimated at SEK 0.33 million per year, derived from token processing and computational resource usage. For an on-premises setup, it is assumed that 3.4 million inquiries per year translate to an average of 9.7 active conversations per minute, assuming an even distribution 16 hours a day every week. Each active conversation requires four GPUs, and the estimated cost per high-end GPU, including VRAM and hardware, is 114.600 SEK. This brings the total on-premises cost to approximately SEK 4.5 million in total. Achieving adequate performance for Belgian-language processing would require a large language model, such as Llama70B, which demands 123 GB of VRAM per GPU for effective operation.
Source: Implement Economics based on OpenAI, Llama, and Skatteverket (2024)

Cloud provide the flexibility to scale with fluctuating demands

The demand for public AI applications varies significantly throughout the day and year. During peak periods, a high volume of tasks must be handled simultaneously, placing substantial pressure on AI infrastructure.

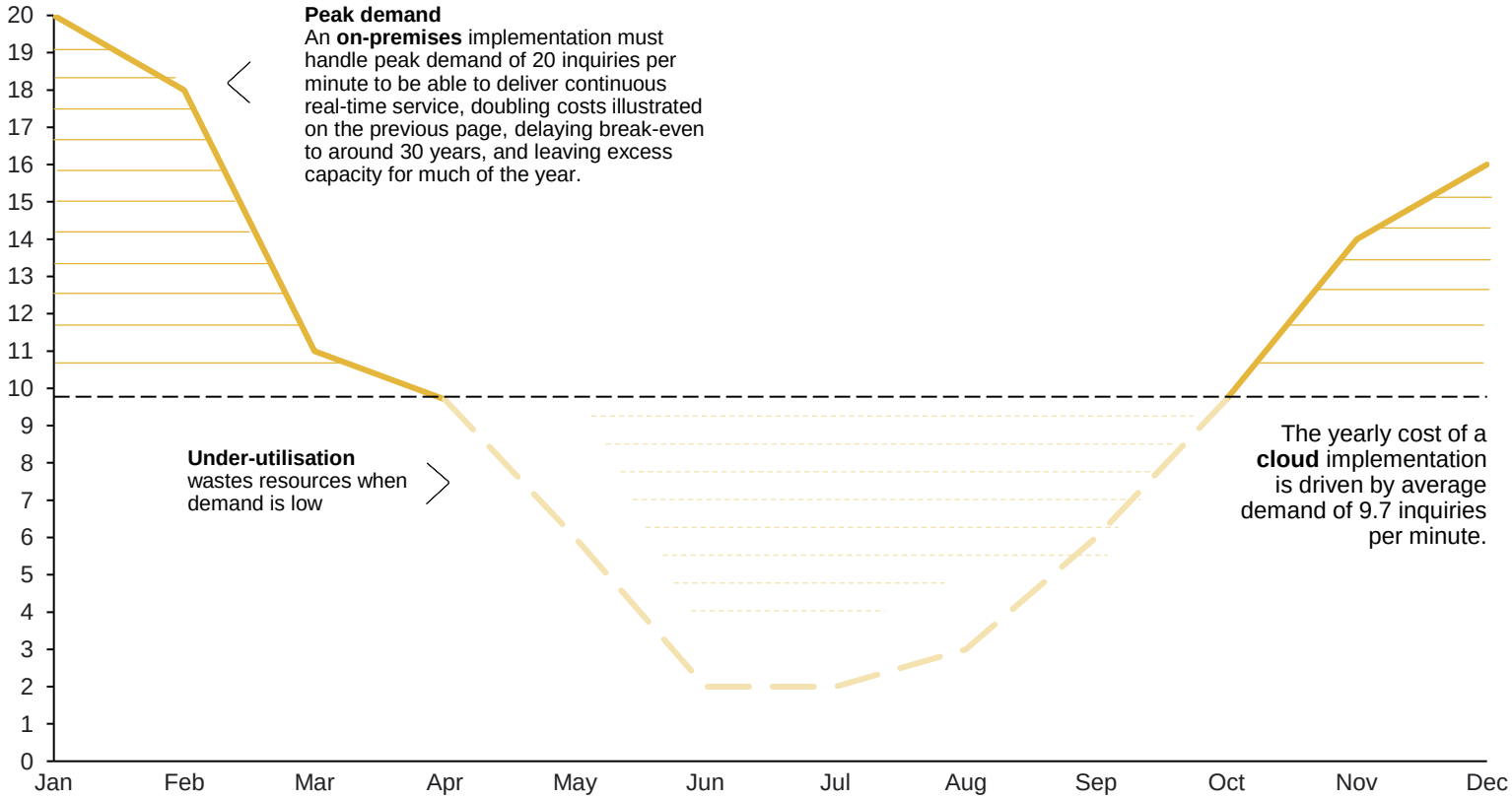
Cloud solutions offer flexible scalability, with costs tied to actual usage.

In contrast, an on-premises setup requires investment not only for average demand but also for peak capacity to avoid bottlenecks.

> The biggest advantage of using cloud services is that they are easy to use and enable a quick start-up. You can thus scale up your AI operations without costly investments. This is particularly valuable if the need for computing power varies a lot over time, as a dedicated computer would then sit unused for periods of time.
>
> **The AI Commission** in Roadmap for Sweden (2024)

Example Swedish Tax Chatbot

Inquiries per month (illustrative)
Average inquiries per minute



Establish clear regulatory guidance and procurement practices for data sharing and using cloud-based tools to unlock the AI potential

Sweden's AI Commission emphasises the need for secure and effective use of cloud services in the public sector but notes the lack of a coherent, unified framework for cloud adoption across government levels. Current practices remain fragmented, and despite new high-level guidelines for public-sector use of generative AI, persistent legal uncertainty continues to hinder progress. Enhancing central coordination and establishing clear standards should ensure digital sovereignty, business continuation, and data protection in the public procurement and adoption of cloud-based tools and infrastructure.

Implement a centralised cloud strategy. Adopt a cohesive nationwide cloud policy applied consistently across all government levels, including local and decentralised entities. Centralised procurement guidance will ensure security and compliance standards are universally applied.

Strengthen oversight and transparency. Clarify regulations, such as Sweden's Public Access to Information and Secrecy Act (OSL), to eliminate legal uncertainties and ensure public actors can adopt cloud services effectively and securely. Furthermore, transparent reporting practices should be established to provide a clear overview of cloud usage across public administrations without increasing oversight burdens.

Safeguard digital sovereignty and resilience. Governments should prioritise digital sovereignty by enforcing interoperability and planning exit strategies. Collective action ensures data localisation and safeguards critical public services from external risks.

Conduct and update risk assessments. Mitigate risks through government-wide risk assessments, evaluating sovereignty, service continuity, data protection, cost, and innovation. Regularly update assessments for all cloud services, adapting to evolving risks.

Source: Implement Economics based on the AI Commission in Roadmap for Sweden (2024)

PART II

Make smart procurement choices

To adopt AI at scale, the Swedish government needs to re-invent the way they procure digital services to ensure flexibility, innovation and competition

Digitalisation and the deployment of artificial intelligence (AI) are also essential to the ability of public administrations to deliver European public goods, for example in the field of health, justice, education, welfare, mobility and environmental protection.

Mario Draghi (2024)

Restrictive licensing terms hold back vendor switching

Public institutions frequently use specialised IT systems designed for specific needs, which limits their flexibility and makes adopting new technologies such as generative AI difficult. Vendor lock-in occurs when institutions rely on a few suppliers, restricting adaptability and causing high costs due to technology dependence.

Restrictive contractual terms make cloud switching and multi-cloud adoption more costly or even unviable. Several studies have examined this:

In a recent survey of +1,200 IT decision-makers across five European countries, Savanta, a data intelligence company, finds evidence of restrictive licensing and other activities that inhibit market competition.

> *Licensing issues in the public sector are also rife, with 6 in 10 organisations that have considered switching saying that a key reason why they didn't change IaaS providers was due to existing licensing terms.*

The Competition & Markets Authority in the UK *provisionally found* that restrictive licensing **harms competition** in cloud services.

In the EU, the Commission is currently considering investigating restrictive software licensing.

> *We have also provisionally found that there are technical barriers and commercial barriers in the form of egress fees to switching and multi-cloud that harm competition in cloud services in the UK by locking customers into their initial choice of provider which may not reflect their evolving needs.*

In a recent study, the German think tank ZnT finds that restrictive licensing imposes a significant financial burden, with transferring existing software licenses to third-party cloud services potentially costing up to 25% of annual expenditure.

> *… restrictive licensing practices by dominant software and cloud providers are creating a financial burden, limiting choice, and hindering innovation.*

60%

of surveyed IT decision-makers in the public sector cited licensing restrictions as a key barrier to switching.

Note: Survey results for Social Market Foundation, Savanta Survey (respondents comprise N=1,241 IT decision-makers across UK, France, Germany, Netherlands and Spain – here summarised as representative for the EU27). The reports mentioned here further provide insightful estimates on the financial burden caused by vendor lock-in. However, these calculations rely on a number of assumptions, making them unfit for direct conclusions.
Source: Implement Economics based on Jenny, F. (2023), CMA (2025), SMF (2024), ZNT (2025) and Savanta (2024),

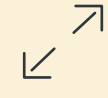
Ensure flexibility and hybrid capabilities to meet evolving needs in public procurement

Governments must prioritise flexible procurement strategies to mitigate the risk of overreliance on a single provider, emphasising open data standards and interoperability to ensure long-term competition and adaptability. An AI procurement strategy should ensure that vendors meet key criteria, including:

Guarantee data security and compliance, ensuring adherence to national and EU laws (e.g. GDPR) while maintaining strict security protocols.

Align with public sector ethical standards, ensuring AI solutions promote fairness and transparency, and mitigate risks such as algorithmic bias.

Ensure interoperability with existing systems, enabling seamless integration with current government IT infrastructure to reduce disruption and implementation costs.



Offer scalable and flexible infrastructure, capable of adjusting resources based on the changing needs of public administration, while ensuring reliable performance.

Provide clear service level agreements with accountability, ensuring defined performance metrics, uptime guarantees, and fast response times for addressing service failures**.**

Provide carbon footprint data using state-of-the-art data on the hour-by-hour carbon-free energy for the operational emissions of the data centre.

Summary of part II

To address critical enablers, the Swedish government should…

Create cloud clarity

Develop a clear framework for secure and compliant cloud adoption by centralising strategies and improving oversight.

Regularly update risk assessments to ensure innovation, transparency, and resilience.

Make smart procurement choices

Optimise AI and cloud procurement by ensuring flexibility, scalability, and alignment with open standards to avoid vendor lock-in.

Strengthen the government's position by monitoring subscription costs, purchasing only necessary functionalities, and enforcing ethical, secure, and sustainable practices in contracts with vendors.

PART III

A bold vision for the Swedish government

Our vision of the future is instead a society that reflects a conscious effort to take maximum advantage of the opportunities the use of AI offers, while dealing with the problems that arise.

The AI Commission in Roadmap for Sweden (2024)

Set ambitious targets and make an actionable strategy with clear milestones

The Swedish AI Commission recommends appointing a dedicated task force within the cabinet committee at the government offices, tasked with ensuring that the necessary measures related to AI are implemented.

The task force should act as a bridge between policymakers and government office staff working on specific issues and regularly engage with representatives from society at large, including businesses, labour market partners, municipalities, and regions.

A core responsibility of the task force would be to prepare an AI strategy. The government should decide on the strategy in the spring of 2025.

In line with this recommendation from the AI Commission, Implement proposes a high-level strategy for public administration.

High-level roadmap for capturing the AI opportunity within public administration

01 — Establish an AI task force and address the five key barriers

1–2 years

- Implement a task-based framework and approach to the implementation strategy.
- Establish clear key performance indicators (KPIs).
- Establish clear regulatory guidance and procurement practices for cloud-based tools.
- Prioritise flexible procurement strategies to avoid overreliance on a single provider, focusing on open data standards and interoperability to ensure long-term competition and adaptability.

02 — Use risk and impact measures to prioritise

3–5 years

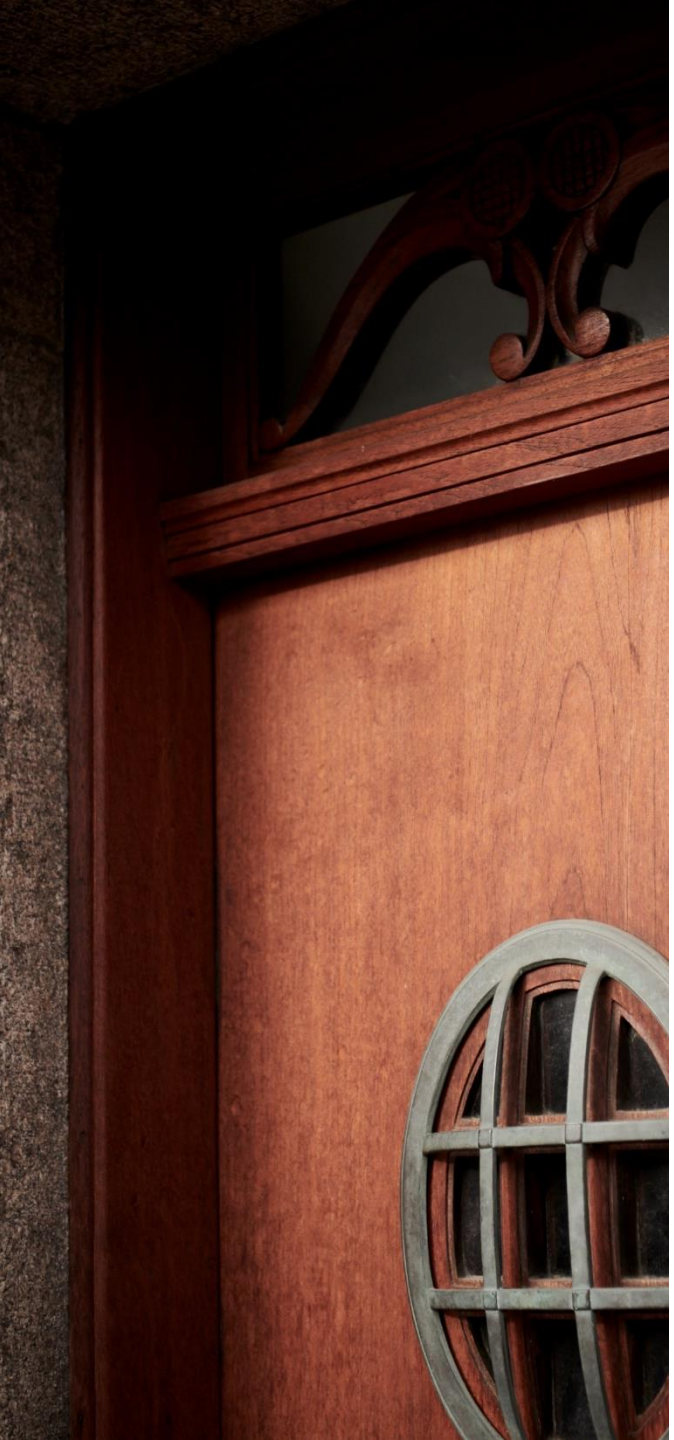
- Allocate funds toward executable and scalable applications.
- Implement scalable solutions and anchor them with cross-cutting tasks.
- Set targets for services with high citizen and business impact.
- Ensure critical enablers are in place.

03 — Scale successful applications

7–10 years

- Scale successful applications across tasks, making sure knowledge and experience are shared between institutions.
- Ensure public administration employees retain key skills to fully capture the augmenting effects of AI.

Source: Implement Economics based on the Swedish AI Commission (2024) and OECD (2021)



Appendix

Modelling the potential impacts of AI on public administration

Overview of the methodological approach to calculating the exposure to and productivity impact from generative AI

1. **Automation potential of work activities:** The exposure to generative AI is calculated by breaking down the automation potential of unique task descriptions and their associated general work activity in the occupational task database O*NET. In line with Briggs and Kodnani (2023), the methodology assumes that 13 of 41 overall work activities (e.g. getting information, performing administrative activities etc.) can potentially be automated by generative AI, and in the base scenario we assume that tasks with a difficulty up to level 4 on the O*NET-defined scale can be automated.

2. **Mapping automation potential of work activities to occupations:** First, the 41 work activities for 900 US occupations are mapped using importance-average activities for each occupation, providing an estimate of the share of each occupation's total workload that AI has the potential to automate. Secondly, this number is projected from US to European occupations through the European Commission's crosswalk between ESCO and O*NET and finally compiled into aggregated occupations (using the sub-occupation employment). This leaves us with the three shares that describe how big a share of the work activities each occupation is expected to see: No automation, AI complement and Likely replacement. For public administration, we map detailed ISCO level 4 employment data in NACE sector O in Sweden to the above-mentioned taxonomy.

3. **Quantifying productivity gains in public administration:** Generative AI is assumed to affect the productivity of the work activities for each occupation as follows: The 'No automation' share of work activities is assumed to be unaffected by generative AI. 'AI complement' work activities experience a productivity boost from automation. 'Likely replacement' is the share of work activities in a sector that are expected to be entirely automated/replaced. These workers are expected to be re-employed in slightly less productive jobs. The three effects are calculated in public administration in Sweden and scaled by the sector's value added to determine the full productivity potential/generation of new jobs from generative AI. Only part of the total long-run productivity increases from generative AI is expected to materialise in the economy during the initial ten-year period of technology adoption following an S-curve adoption trajectory.

4. **Mapping the potential to cross-cutting tasks:** The aforementioned calculated potential is distributed across cross-cutting tasks within public administration by mapping detailed work activities to a framework that encompasses the work carried out within this sector.

- The method in this paper is in line with the methodology developed by Briggs and Kodnani (2023) in 'The Potentially Large Effects of Artificial Intelligence on Economic Growth'.
- The estimation of the potential of AI across key cross-cutting tasks (step 4) is based on an augmentation of Briggs & Kodnani (2023) with granular Swedish employment data and a framework of the task composition within public administration, which is mapped to the rich database of task descriptions within O*NET.

Note: Methodology is based on Briggs and Kodnani (2023).
Source: Implement Economics based on the European Commission, Statistics Sweden, Eurostat, O*Net and Briggs and Kodnani (2023).

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Disclaimer

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